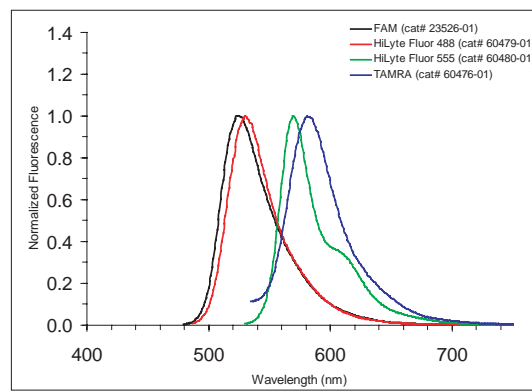
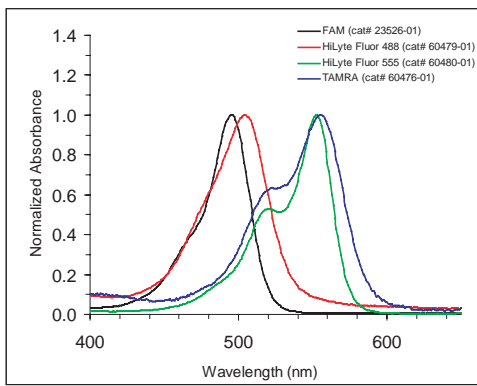


# Alzheimer's Research

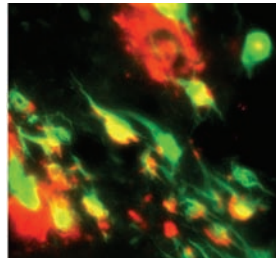
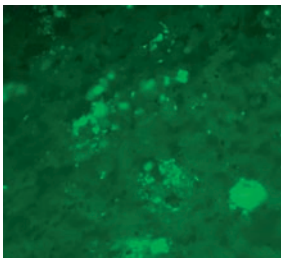
World's Largest Collection of  $\beta$ -Amyloid Peptides



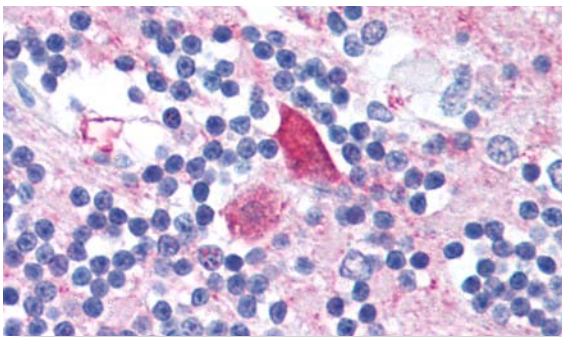
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Absorption (left) and emission (right) spectrum of various fluorophore-labeled  $\beta$ -Amyloids (1-42).



*Left:* An AD brain section probed with A $\beta$  (1-42), HiLyte Fluor™ 488-labeled peptide. *Right:* A mixture of tangled neurons coexpressing A $\beta$  and Tau (yellow color), Tau only (green color), and extracellular A $\beta$  deposits (red color). Tau antibody was labeled with HiLyte Fluor™ 488-labeled goat anti-rabbit IgG and A $\beta$  antibody labeled with HiLyte Fluor™ 555-labeled goat anti-mouse IgG. Both images are courtesy of Dr. J-P. Guo in Dr. Patrick L. McGeer's lab, University of British Columbia, Vancouver, Canada.



Anti-TAU (cat# 54969) shows strong staining of neuropil and cell processes in the brain with minimal background staining in formalin-fixed brain section. Localization of the antibody is seen as the precipitated red signal, with a hematoxylin purple nuclear counterstain.

#### Abbreviations:

AMCA 7-Amino-4-methylcoumarinyl  
 DABCYL 4-(4-Dimethylaminophenylazo)benzoyl  
 Dap(Dnp) L- $\alpha$ , $\beta$ -Diaminopropionyl(2,4-Dinitrophenyl)  
 DEAC (7-Diethylaminocoumarin-3-yl)carbonyl  
 EDANS 5-[(2-Aminoethyl)amino]naphthalene-1-sulfonyl acid  
 Ex/Em Excitation/Emission  
 5-FAM 5-Carboxyfluoresceinyl  
 FRET Fluorescence Resonance Energy Transfer

LC 6-Aminohexanoyl  
 MCA (7-Methoxycoumarin-4-yl)acetyl  
 Me Methyl  
 Met(O) L-Methionine S-oxide  
 Nle Norleucine  
 Pyr (pGlu) L-Pyroglutamyl  
 5-ROX 5-Carboxy-X-rhodaminyl  
 5-TAMRA 5-Carboxytetramethylrhodaminyl

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## How To Look for a $\beta$ -Amyloid Peptide

This brochure starts with a section on the longest  $\beta$ -amyloid sequences, (1-44) to (1-49) and (1-55). Three prominent sections are dedicated to  $\beta$ -amyloids (1-42), (1-40) and (1-28). Each section contains dye- and/or biotin-labeled  $\beta$ -amyloid peptides, modifications, analogs, as well as shorter fragments ending at 42, 40 or 28. Other  $\beta$ -amyloid peptide fragments, arranged in numerical order, are found on p.10-12. Mouse/rat sequences, including long sequences, are listed under " $\beta$ -Amyloids - Mouse/Rat" on p.13.

## Introduction

$\beta$ -Amyloid ( $A\beta$ ) peptides are generated as cleavage products 39 to 43 amino acids in length from the membrane protein, Amyloid Precursor Protein (APP) by two proteases,  $\beta$ -secretase and  $\gamma$ -secretase (1-3). While only a small amount is processed by  $\beta$ -Secretase, also known as BACE1 ( $\beta$ -secretase APP cleaving enzyme) or memapsin, APP is predominantly processed by  $\alpha$ -Secretase, producing a 83-amino acid C-terminal fragment, C83. Subsequent cleavage of C83 by  $\gamma$ -secretase produces a non-toxic N-terminal 3kD protein (1-2).

$A\beta$ s are amphiphilic peptides with a hydrophilic N-terminal domain (residues 1 to 28) and a hydrophobic C-terminal (residues 29 to 40-42), the latter corresponding to a part of the transmembrane domain of APP (4).  $\beta$ -Amyloid assembly into fibrils is initiated by a conformational transition from random coil to  $\beta$ -sheet (hence the name  $\beta$ -amyloid) and a nucleation-dependent aggregation process (4).  $A\beta$  peptides that are 39 to 42 amino acid residues in length with a molecular mass of approximately 4 kDa are the core components of neuritic plaques seen in Alzheimer's disease (AD) brains. The presence of excess amount of  $A\beta$  deposits and neurofibrillary tangles, NFTs (5-6), comprising of hyperphosphorylated Tau proteins are the hallmarks of an AD brain (1).

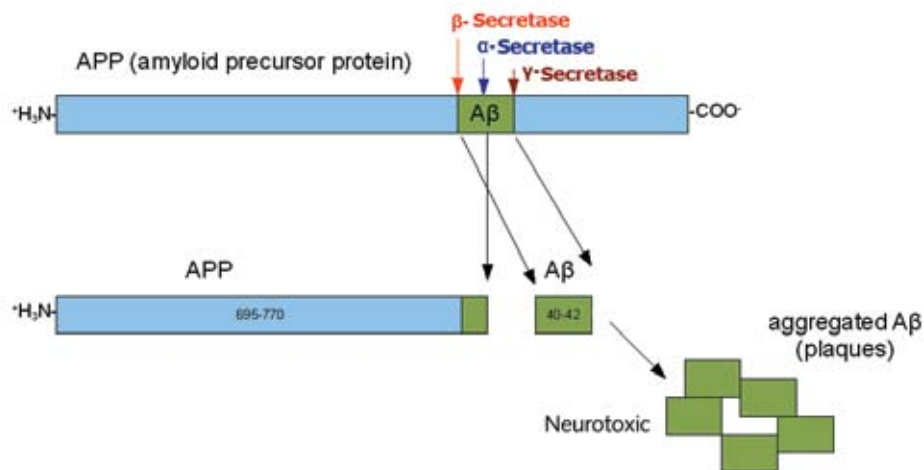


Figure 1. A schematic diagram of the amyloid precursor protein (APP) and the cleavage sites of  $\alpha$ ,  $\beta$  and  $\gamma$ -secretases (diagram modified from *Wikipedia: The free encyclopedia*. (2008, Mar 12). FL: Wikimedia Foundation, Inc. Retrieved March 12, 2008, from [http://en.wikipedia.org/wiki/Image:APP\\_cleavage.png](http://en.wikipedia.org/wiki/Image:APP_cleavage.png)).

Harnessing over a decade's worth of experience and a multi-level technology platform that includes peptides, antibodies, dyes, and assay kits, AnaSpec is one of the world's most trusted sources of integrated proteomics solutions specifically designed for Alzheimer's Disease research. From the world's largest collection of  $\beta$ -amyloid peptides to the industry's most sensitive assay kits for  $\alpha$ - and  $\beta$ -Secretase detection, this latest brochure offers a comprehensive view of AnaSpec's wide array of Alzheimer's related research solutions.

### Peptides

- World's largest collection of  $\beta$ -amyloid peptides.
- Longest commercially available  $\beta$ -amyloid fragments: (1-43) to (1-53)
- The three most studied fragments:  $\beta$ -amyloid (1-42),  $\beta$ -amyloid (1-40),  $\beta$ -amyloid (1-28)
- Related products, including analogs and a spectrum of dye-labeled  $\beta$ -amyloid peptides of different lengths; and APP fragments and humanins

### Antibodies

- 21 new anti-Tau antibodies both phospho and non-phospho-specific.
- Other AD-related antibodies

### Assay Kits & Dyes

- DHL™ Fluorescent  $\beta$ -Amyloid Sampler kits for (1-40) and (1-42)
- Sensolyte™ 520  $\alpha$ -Secretase Assay Kit and Sensolyte™ 520  $\beta$ -Secretase Assay Kit – Industry's Highest Sensitivity
- Congo Red, Thioflavin T and their derivatives for labeling amyloid fibrils

### References:

1. Selkoe DJ. *Nature* **399**, A23 (1999).
2. Suh, Y-H. and F. Checler, *Pharmacol. Rev.* **54**, 469 (2002).
3. Kang, J. et al. *Nature* **325**, 733 (1987).
4. Jarrett, JT. et al. *Biochem.* **32**, 4693 (1993).
5. Masters, CL. et al. *EMBO J.* **4**, 2757 (1985).
6. Braak, H. et al. *Acta. Neuropathol.* **87**, 554 (1994).

## β-Amyloid (1-43) to (1-49) & (1-55) Peptides

AnaSpec is proud to be the industry's first provider of β-amyloid peptides for sequences longer than 1-44. Notoriously difficult to synthesize due to a C-terminus sequence composed primarily of hydrophobic amino acids, these Aβ fragments are products of novel cleavage sites (ε and ζ) downstream of the γ-cleavage site.

Ref: Qi-Takahara, Y. et al. *J. Neurosci.* **25**, 436 (2005); Zhao, G. et al. *J. Biol. Chem.* **280**, 37689 (2005).

Product Name	Sequence	MW	Cat# (size)
β-Amyloid (1-43)	DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIAT	4615.2	25356 (0.5 mg) 25357 (1 mg)
β-Amyloid (1-43), scrambled	TAIAEGDShVLKEGAYMEIFDVQGHVFGGKIFRVVDLGSHNVA	4615.2	25384 (0.5 mg) 25385 (1 mg)
β-Amyloid (1-44)	DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIATV	4714.4	61966-01 (0.1 mg)
β-Amyloid (1-45)	DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIATVI	4827.5	61956-01 (0.1 mg)
β-Amyloid (1-46)	DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIATVIV	4926.6	62076-01 (0.1 mg)
β-Amyloid (1-47)	DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIATVIVI	5039.8	61964-01 (0.1 mg)
β-Amyloid (1-48)	DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIATVIVIT	5140.9	61965-01 (0.1 mg)
β-Amyloid (1-49)	DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIATVIVITL	5254.1	61963-01 (0.1 mg)
β-Amyloid (1-55)	DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIATVIVITLMLKKK	5982.1	63335 (0.1 mg)
β-Amyloid, mouse, rat	<i>Mouse and rat specific long sequences can be found under "β-Amyloids - Mouse/Rat" section.</i>		

## β-Amyloid (1-42) and Related Peptides

Aβ (1-42), a major component of amyloid plaques, accumulates in neurons of Alzheimer's disease (AD) brains. Biochemical analysis of the amyloid peptides isolated from AD brain indicates that Aβ (1-42) is the principal species associated with senile plaque amyloids, while Aβ (1-40) is more abundant in cerebrovascular amyloid deposit.

Ref: Nagele, R. et al. *Neurosci.* **110**, 199 (2002); Garzon-Rodriguez, W. et al. *J. Biol. Chem.* **272**, 21037 (1997).

Product Name	Sequence	MW	Cat# (size)
β-Amyloid (1-42)	DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVIA	4514.1	24224 (0.5 mg) 20276 (1 mg)
β-Amyloid (1-42) • HCl	DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVIA • HCl	4514.1 • 36.5	21791 (0.5 mg) 21793 (1 mg)
β-Amyloid (1-42) • sodium salt	DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVIA • Na salt	4514.1 • 23	60883-01 (0.1 mg) 60883 (1 mg)
Scrambled-β-Amyloid (1-42)	AIAEGDShVLKEGAYMEIFDVQGHVFGGKIFRVVDLGSHNVA	4514.1	25382 (0.5 mg) 25383 (1 mg)
Scrambled-β-Amyloid (1-42), 5-FAM-labeled	5-FAM-AIAEGDShVLKEGAYMEIFDVQGHVFGGKIFRVVDLGSHNVA, Ex/Em= 494 nm/521 nm	4873.4	60892 (0.1 mg)
β-Amyloid (42-1)	AIVVGGVMLGIIAGKNSGVDEAFFVLKQHHVEYGS DHRFEAD	4514.1	27276-01 (0.1 mg) 27275 (0.5 mg) 27276 (1 mg)
β-Amyloid (42-1) • HCl	VVGGVMLGIIAGKNSGVDEAFFVLKQHHVEYGS DHRFEAD	4514.1 • 36.5	60291-01 (0.1 mg) 60291-05 (0.5 mg)
26-O-acyl iso β-Amyloid (1-42)	DAEFRHDSGYEVHHQKLVFFAEDVGS <sub>ψ</sub> (COO)SNKGAIIGLMVGGVIA	4515.1	60891 (0.5 mg)
Biotin-β-Amyloid (1-42)	Biotin-DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVIA	4740.4	23524-01 (0.1 mg) 23523-05 (0.5 mg)
Biotin-LC-β-Amyloid (1-42)	Biotin-LC-DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVIA	4853.6	24641-01 (0.1 mg) 24640 (0.5 mg)
β-Amyloid (1-42)-Lys(Biotin)-NH <sub>2</sub>	DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVIA-K(Biotin)-NH <sub>2</sub>	4867.6	61484-01 (0.1 mg) 61484-05 (0.5 mg)
β-Amyloid (1-42)-Lys(Biotin), 5-FAM-labeled	5-FAM-DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVIA-K(Biotin), Ex/Em=494 nm/521 nm	5226.9	23599-01 (0.1 mg) 23598 (0.5 mg)

## β-Amyloid (1-42) and Related Peptides (con't)

Product Name	Sequence	MW	Cat# (size)
β-Amyloid (1-42), AMCA-LC-labeled	AMCA-LC-DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA, Ex/Em= 354 nm/442 nm	4842.5	60475-01 (0.1 mg)
β-Amyloid (1-42), 5-FAM-labeled	5-FAM-DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA, Ex/Em= 494 nm/521 nm	4873.4	23526-01 (0.1 mg) 23525-05 (0.5 mg)
β-Amyloid (1-42), HiLyte Fluor™ 488-labeled	HiLyte Fluor™ 488-DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGV VIA, Ex/Em= 503 nm/528 nm	4870.5	60479-01 (0.1 mg)
β-Amyloid (1-42), HiLyte Fluor™ 555-labeled	HiLyte Fluor™ 555-DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGV VIA, Ex/Em= 551 nm/567 nm	4983.7	60480-01 (0.1 mg)
β-Amyloid (1-42), 5-ROX-labeled	5-ROX-DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA, Ex/Em= 567 nm/591 nm	5047.7	63319 (0.1 mg)
β-Amyloid (1-42), 5-TAMRA-labeled	5-TAMRA-DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA, Ex/Em= 544 nm/572 nm	4926.6	60476-01 (0.1 mg)
[Asn <sup>6,13,14</sup> ]-β-Amyloid (1-42)	DAEFRNDSGYEVNNQKLVFFAEDVGSNKGAIIGLMVGGVVIA	4445.0	61958-01 (0.1 mg)
[Arg <sup>6</sup> ]-β-Amyloid (1-42), English Mutation	DAEFRRDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA	4533.2	63323 (0.5 mg)
[Asn <sup>7</sup> ]-β-Amyloid (1-42), Tottori-Japanese Mutation	DAEFRHNSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA	4513.1	63324 (0.5 mg)
[Ala <sup>20</sup> ]-β-Amyloid (1-42)	DAEFRHDSGYEVHHQKLVFAAEDVGSNKGAIIGLMVGGVVIA	4438.0	62446 (0.5 mg)
[Gly <sup>22</sup> ]-β-Amyloid (1-42), Arctic Mutation	DAEFRHDSGYEVHHQKLVFFAGDVGSNKGAIIGLMVGGVVIA	4440.1	61967-05 (0.5 mg)
[Lys <sup>22</sup> ]-β-Amyloid (1-42), Italian Mutation	DAEFRHDSGYEVHHQKLVFFAKDVGSNKGAIIGLMVGGVVIA	4513.2	62148 (0.5 mg)
[Pro <sup>31</sup> ]-β-Amyloid (1-42)	DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAPIGLMVGGVVIA	4498.1	62443 (0.5 mg)
[Val <sup>33</sup> ]-β-Amyloid (1-42)	DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIVLMVGGVVIA	4556.2	62442 (0.5 mg)
[Gly <sup>35</sup> , Asp <sup>37</sup> ]-β-Amyloid (1-42)	DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLVGDGVVIA	4498.0	62832-01 (0.1 mg) 62832-05 (0.5 mg)
[Leu <sup>35</sup> ]-Met-β-Amyloid (1-42)	MDAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLLVGGVVIA	4627.3	61957-01 (0.1 mg)
[Met(O) <sup>35</sup> ]-β-Amyloid (1-42)	DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGL-M(O)-VGGVVIA	4530.1	62478 (0.5 mg)
[Nle <sup>35</sup> ]-β-Amyloid (1-42)	DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGL-Nle-VGGVVIA	4496.1	23532-01 (0.1 mg) 23531 (0.5 mg)
[Val <sup>35</sup> ]-β-Amyloid (1-42)	DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLVVGGVVIA	4482.1	60556-01 (0.1 mg) 60556-05 (0.5 mg)
[Asp <sup>37</sup> ]-β-Amyloid (1-42)	DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVDGVVIA	4573.2	62444 (0.5 mg)
[Leu <sup>37</sup> ]-β-Amyloid (1-42)	DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVLGVVIA	4570.2	62829-01 (0.1 mg) 62829-05 (0.5 mg)
β-Amyloid (2-42)	AEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA	4399.0	29909-01 (0.1 mg) 29909-1 (1 mg)
[Pyr <sup>3</sup> ]-β-Amyloid (3-42)	Pyr-FRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA	4309.9	29907-01 (0.1 mg) 29907-1 (1 mg)
β-Amyloid (3-42)-Lys(Biotin)-NH <sub>2</sub>	EFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA-K(Biotin)-NH <sub>2</sub>	4682.4	61959-01 (0.1 mg)
β-Amyloid (4-42)	FRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA	4198.8	29908-01 (0.1 mg) 29908-1 (1 mg)
β-Amyloid (5-42)	RHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA	4051.6	60087-01 (0.1 mg) 60087-1 (1 mg)
β-Amyloid (6-42)	HDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA	3895.4	60086-01 (0.1 mg) 60086-1 (1 mg)
β-Amyloid (8-42)	SGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA	3643.2	60085-01 (0.1 mg) 60085-1 (1 mg)

## β-Amyloid (1-42) and Related Peptides (con't)

Product Name	Sequence	MW	Cat# (size)
β-Amyloid (9-42)	GYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA	3556.2	60084-01 (0.1 mg) 60084-1 (1 mg)
β-Amyloid (9-42)-Lys (Biotin)-NH <sub>2</sub>	GYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA-K(Biotin)-NH <sub>2</sub>	3909.7	62462 (0.5 mg)
β-Amyloid (11-42)	EVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA	3335.9	63317 (1 mg)
β-Amyloid (11-42)-Lys (Biotin)-NH <sub>2</sub>	EVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA-K(Biotin)-NH <sub>2</sub>	3689.4	62470 (0.5 mg)
[Pyr <sup>11</sup> ]-β-Amyloid (11-42)	Pyr-VHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA	3317.9	29903-01 (0.1 mg) 29903-1 (1 mg)
β-Amyloid (11-42), 5-FAM-labeled	5-FAM-EVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA Ex/Em=494 nm/521 nm	3694.2	63328 (0.1 mg)
β-Amyloid (11-42), HiLyte Fluor™ 488-labeled	HiLyte Fluor™ 488-EVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA Ex/Em=494 nm/521 nm	3692.3	63327 (0.1 mg)
β-Amyloid (12-42)	VHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA	3206.8	62452 (1 mg)
β-Amyloid (17-42)	LVFFAEDVGSNKGAIIGLMVGGVVIA	2577.1	22815 (0.5 mg) 22816 (1 mg)
β-Amyloid (17-42) • HCl	DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIA • HCl	2577.1 • 36.5	29842 (0.5 mg) 29843 (1 mg)
[Nle <sup>35</sup> ]-β-Amyloid (17-42)	LVFFAEDVGSNKGAIIGL-Nle-VGGVVIA	2559.1	61076-05 (0.5 mg) 61076-1 (1 mg)
β-Amyloid (20-42)	FAEDVGSNKGAIIGLMVGGVVIA	2217.6	61989 (1 mg)
β-Amyloid (22-42)	EDVGSNKGAIIGLMVGGVVIA	1999.4	61972 (1 mg)
β-Amyloid (23-42)	DVGSNKGAIIGLMVGGVVIA	1870.3	62766 (1 mg)
β-Amyloid (26-42)	SNKGAIIGLMVGGVVIA	1599.0	62915 (1 mg)
Biotin-β-Amyloid (29-42)	BIOTIN-GAIIGLMVGGVVIA	1495.9	61986 (1 mg)
β-Amyloid (34-42)	LMVGGVVIA	858.1	62918 (1 mg)
β-Amyloid (35-42)	MVGGVVIA	745.0	61981 (1 mg)

## β-Amyloid (1-40) and Related Peptides

Aβ (1-40) together with Aβ (1-42) are two major C-terminal variants of the Aβ protein constituting the majority of Aβs. These undergo post-secretory aggregation and deposition in the Alzheimer's disease brain.

Ref: Masters, CL. et al. *Proc. Natl. Acad. Sci. USA* **82**, 4245 (1985); Yankner, BA. *Neuron* **16**, 921 (1996); Geula, C. et al. *Nat. Med.* **4**, 827 (1998); Shin, R. et al. *J. Neurosci.* **17**, 8187 (1997).

Product Name	Sequence	MW	Cat# (size)
β-Amyloid (1-40)	DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVV	4329.9	24235 (0.5 mg) 24236 (1 mg)
β-Amyloid (1-40) • HCl	DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVV • HCl	4329.9 • 36.5	23211 (0.5 mg) 20698 (1 mg)
Scramble-β-Amyloid (1-40)	AEGDShVLKEGAYMEIFDVQGHVFGGKIFRVVDLGSNVA	4329.9	24625 (0.5 mg) 24626 (1 mg)
β-Amyloid (40-1)	VVGGVMLGIIAGKNSGVDEAFFVLKQHHVEYGS DHRFEAD	4329.9	22817 (0.5 mg) 22818 (1 mg)
β-Amyloid (40-1) • HCl	VVGGVMLGIIAGKNSGVDEAFFVLKQHHVEYGS DHRFEAD • HCl	4329.9 • 36.5	21795 (0.5 mg) 21797 (1 mg)
Biotin-β-Amyloid (1-40)	Biotin-DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVV	4556.2	23512-01 (0.1 mg) 23511-05 (0.5 mg) 23512 (1 mg)

## β-Amyloid (1-40) and Related Peptides (con't)

Product Name	Sequence	MW	Cat# (size)
Biotin-LC-β-Amyloid (1-40)	Biotin-LC-DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVV	4669.4	24645-01 (0.1 mg) 24648 (0.5 mg) 24645 (1 mg)
β-Amyloid (1-40)-Lys(Biotin)-NH <sub>2</sub>	DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVV-K(Biotin)-NH <sub>2</sub>	4684.4	61483-01 (0.1 mg) 61483-05 (0.5 mg)
β-Amyloid (1-40)-Lys(Biotin-LC)	DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVV-K(Biotin-LC)	4797.5	23518-01 (0.1 mg) 23517 (0.5 mg)
β-Amyloid (1-40)-Lys(Biotin)-NH <sub>2</sub> , 5-FAM-labeled	5-FAM-DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVV-K(Biotin)-NH <sub>2</sub> , Ex/Em= 494 nm/521 nm	5041.7	23597-01 (0.1 mg) 23596 (0.5 mg)
β-Amyloid (1-40)-Lys(LC-Biotin), 5-FAM-labeled	5-FAM-DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVV-K(LC-BIOTIN)-NH <sub>2</sub> Ex/Em= 494 nm/521 nm	5154.9	61962-01 (0.1 mg)
β-Amyloid (1-40), DEAC-labeled	DEAC-DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVV, Ex/Em=432nm/472nm, DEAC=(7-Diethylaminocoumarin-3-yl)carbonyl	4573.1	61949-01 (0.1 mg)
β-Amyloid (1-40), AMCA-LC-labeled	AMCA-LC-DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVV, Ex/Em= 354 nm/442 nm	4658.3	60487-01 (0.1 mg)
β-Amyloid (1-40), 5-FAM-labeled	5-FAM-DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVV, Ex/Em= 494 nm/521 nm	4688.2	23514-01 (0.1 mg) 23513-05 (0.5 mg)
β-Amyloid (1-40), HiLyte Fluor™ 488-labeled	HiLyte Fluor™ 488-DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVV, Ex/Em= 503 nm/528 nm	4686.3	60491-01 (0.1 mg)
β-Amyloid (1-40), HiLyte Fluor™ 555-labeled	HiLyte Fluor™ 555-DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVV, Ex/Em= 551 nm/567 nm	5199.0	60492-01 (0.1 mg)
β-Amyloid (1-40), HiLyte Fluor™ TR-labeled	HiLyte Fluor™ TR-DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVV, Ex/Em= 584 nm/607 nm	4874.6	60490-01 (0.1 mg)
β-Amyloid (1-40), Rhodamine Green-labeled	Rhodamine Green-DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVV, Ex/Em= 502 nm/527 nm	4686.2	61134 (0.1 mg)
β-Amyloid (1-40), 5-ROX-labeled	5-ROX-DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVV, Ex/Em= 567 nm/591 nm	4863.5	63318 (0.1 mg)
β-Amyloid (1-40), 5-TAMRA-labeled	5-TAMRA-DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVV, Ex/Em= 544 nm/572 nm	4742.4	60488-01 (0.1 mg)
Cys-β-Amyloid (1-40)	CDAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVV	4433.0	23519 (0.5 mg) 23520 (1 mg)
[Arg <sup>6</sup> ]-β-Amyloid (1-40), English Mutation	DAEFRRDSDGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVV	4348.9	63321 (0.5 mg)
[Asn <sup>7</sup> ]-β-Amyloid (1-40), Tottori-Japanese Mutation	DAEFRHNSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVV	4328.9	63320 (0.5 mg)
[Cys <sup>7</sup> ]-β-Amyloid (1-40)	DAEFRHCSDGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVV	4317.9	62815-05 (0.5 mg) 62815-1 (1 mg)
[Gln <sup>9</sup> ]-β-Amyloid (1-40)	DAEFRHDSQYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVV	4401.0	61948-05 (0.5 mg)
[Gln <sup>11</sup> ]-β-Amyloid (1-40)	DAEFRHDSGYQVHHQKLVFFAEDVGSNKGAIIGLMVGGVV	4328.9	24237 (0.5 mg) 24238 (1 mg)
[Gly <sup>21</sup> ]-β-Amyloid (1-40), Flemish Mutation	DAEFRHDSGYEVHHQKLVFFGEDVGSNKGAIIGLMVGGVV	4315.9	62150 (0.5 mg)
[Gln <sup>22</sup> ]-β-Amyloid (1-40)	DAEFRHDSGYEVHHQKLVFFAQDVGSNKGAIIGLMVGGVV	4328.9	61261 (0.5 mg)
[Gly <sup>22</sup> ]-β-Amyloid (1-40), Arctic Mutation	DAEFRHDSGYEVHHQKLVFFAGDVGSNKGAIIGLMVGGVV	4257.8	61262 (0.5 mg)
[Lys <sup>22</sup> ]-β-Amyloid (1-40), Italian Mutation	DAEFRHDSGYEVHHQKLVFFAKDVGSNKGAIIGLMVGGVV	4328.9	62147 (0.5 mg)
[Asn <sup>23</sup> ]-β-Amyloid (1-40), Iowa Mutation	DAEFRHDSGYEVHHQKLVFFAENVGSNKGAIIGLMVGGVV	4328.9	62145 (0.5 mg)

## β-Amyloid (1-40) and Related Peptides (con't)

Product Name	Sequence	MW	Cat# (size)
[Ala <sup>28</sup> ]-β-Amyloid (1-40)	DAEFRHDSGYEVHHQALVFFAEDVGSNAGAIIGLMVGGVV	4215.7	61968-05 (0.5 mg)
[Leu <sup>33</sup> ]-β-Amyloid (1-40)	DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIILLMVGGVV	4386.0	62830-01 (0.1 mg) 62830-05 (0.5 mg)
[Nle <sup>35</sup> ]-β-Amyloid (1-40)	DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGL-Nle-VGGVV	4311.8	23521 (0.5 mg) 23522 (1 mg)
β-Amyloid (2-40)	AEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVV	4214.8	29905-01 (0.1 mg) 29905-1 (1 mg)
[Pyr <sup>3</sup> ]-β-Amyloid (3-40)	Pyr-FRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVV	4125.7	29906-01 (0.1 mg) 29906-1 (1 mg)
β-Amyloid (4-40)	FRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVV	4014.6	29902-01 (0.1 mg) 29902-1 (1 mg)
β-Amyloid (5-40)	RHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVV	3867.4	62964 (1 mg)
[Gln <sup>22</sup> ]-β-Amyloid (6-40)	HDSGYEVHHQKLVFFAQDVGSNKGAIIGLMVGGVV	3710.2	25358 (0.5 mg) 25359 (1 mg)
β-Amyloid (8-40)	SGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVV	3459.0	61975 (1 mg)
β-Amyloid (11-40)	EVHHQKLVFFAEDVGSNKGAIIGLMVGGVV	3151.7	60017-01 (0.1 mg) 60017-1 (1 mg)
β-Amyloid (11-40), 5-FAM-labeled	5-FAM-EVHHQKLVFFAEDVGSNKGAIIGLMVGGVV Ex/Em=494 nm/521 nm	3510.0	62950 (0.1 mg)
β-Amyloid (11-40), HiLyte Fluor™ 488-labeled	HiLyte Fluor™ 488-EVHHQKLVFFAEDVGSNKGAIIGLMVGGVV Ex/Em=494 nm/521 nm	3508.1	62951 (0.1 mg)
β-Amyloid (11-40)- Lys(Biotin)-NH <sub>2</sub>	EVHHQKLVFFAEDVGSNKGAIIGLMVGGVV-K(Biotin)-NH <sub>2</sub>	3505.2	62471 (0.5 mg)
[Pyr <sup>11</sup> ]-β-Amyloid (11-40)	Pyr-VHHQKLVFFAEDVGSNKGAIIGLMVGGVV	3133.7	29904-01 (0.1 mg) 29904-1 (1 mg)
β-Amyloid (17-40)	LVFFAEDVGSNKGAIIGLMVGGVV	2392.9	22813 (0.5 mg) 22814 (1 mg)
Biotin-β-Amyloid (17-40)	Biotin-LVFFAEDVGSNKGAIIGLMVGGVV	2619.2	23541-01 (0.1 mg) 23540 (0.5 mg) 23541 (1 mg)
Biotin-LC-β-Amyloid (17-40)	Biotin-LC-LVFFAEDVGSNKGAIIGLMVGGVV	2732.3	23543-01 (0.1 mg) 24642 (0.5 mg) 23543 (1 mg)
β-Amyloid (17-40)- KKKK(Biotin)-NH <sub>2</sub>	LVFFAEDVGSNKGAIIGLMVGGVVKKK-K(Biotin)-NH <sub>2</sub>	3130.9	62975 (0.1 mg)
β-Amyloid (22-40)	EDVGSNKGAIIGLMVGGVV	1815.1	62453 (1 mg)
β-Amyloid (22-40)-NH <sub>2</sub>	EDVGSNKGAIIGLMVGGVV-NH <sub>2</sub>	1814.1	62454 (1 mg)
β-Amyloid (26-40)	SNKGAIIGLMVGGVV	1414.7	61985 (1 mg)
Biotin-β-Amyloid (29-40)	Biotin-GAIIGLMVGGVV	1311.7	62449 (1 mg)
β-Amyloid (28-40)- GGGC	KGAIIGLMVGGVVGGGC	1487.9	61988 (1 mg)
β-Amyloid (29-40)	GAIIGLMVGGVV	1085.4	60238-1 (1 mg) 60238-5 (5 mg)
β-Amyloid (33-40)	GLMVGGVV	730.9	61982 (1 mg)
β-Amyloid (1-40) Binding Peptide, 5-FAM-labeled	5-FAM-DWGKGGRWRLWPGASGKTEA	2573.8	62943 (0.1 mg)

## β-Amyloid (1-28) and Related Peptides

The three-dimensional solution structure of Aβ (1-28) reveals the folding of the peptide to form a predominantly α-helical structure with a bend centered at residue 12 and the side chains of histidine-13 and lysine-16 in close proximity, residing on the same face of the helix. Their proximity may constitute a binding motif with the heparan sulfate proteoglycans. Aβ (1-28) is highly hydrophilic and shares sequences with bA4, the major component of Aβ. Its assembly is fibrillar, i.e., elongated in a single direction.

Ref: Kirshenbaum K. and V. Daggett, *Biochem.* **34**, 7640 (1995); Talafous, J. et al. *Biochem.* **33**, 7788 (1994).

Product Name	Sequence	MW	Cat# (size)
β-Amyloid (1-28)	DAEFRHDSGYEVHHQKLVFFAEDVGSNK	3262.5	24231 (0.5 mg) 24232 (1 mg)
Bromoacetyl-β-Amyloid (1-28)	Bromoacetyl-DAEFRHDSGYEVHHQKLVFFAEDVGSNK	3383.5	62441 (1 mg)
Biotin-β-Amyloid (1-28)	Biotin-DAEFRHDSGYEVHHQKLVFFAEDVGSNK	3488.8	60459 (0.1 mg)
β-Amyloid (1-28)-Lys(Biotin)	DAEFRHDSGYEVHHQKLVFFAEDVGSNK-K(Biotin)	3617.0	61260 (0.1 mg)
β-Amyloid (1-28)-Lys(Biotin)-NH <sub>2</sub>	DAEFRHDSGYEVHHQKLVFFAEDVGSNK-K(Biotin)-NH <sub>2</sub>	3616.0	62465 (0.5 mg)
β-Amyloid (1-28), AMCA-labeled	AMCA-DAEFRHDSGYEVHHQKLVFFAEDVGSNK Ex/Em= 354 nm/442 nm	3477.5	60460 (0.1 mg)
β-Amyloid (1-28), 5-FAM-labeled	5-FAM-DAEFRHDSGYEVHHQKLVFFAEDVGSNK Ex/Em= 494 nm/521 nm	3675.0	60759-01 (0.1 mg) 60759 (0.5 mg)
β-Amyloid (1-28), HiLyte Fluor™ 488-labeled	HiLyte Fluor™ 488-DAEFRHDSGYEVHHQKLVFFAEDVGSNK Ex/Em= 503 nm/528 nm	3620.9	60466-01 (0.1 mg)
β-Amyloid (1-28)-Lys(HiLyte Fluor™ 488)	DAEFRHDSGYEVHHQKLVFFAEDVGSNK-K(HiLyte Fluor™ 488) Ex/Em= 503 nm/528 nm	3747.0	60982 (0.1 mg)
β-Amyloid (1-28), 5-TAMRA-labeled	5-TAMRA-DAEFRHDSGYEVHHQKLVFFAEDVGSNK Ex/Em= 544 nm/572 nm	3675.0	60461-01 (0.1 mg)
β-Amyloid (1-28), HiLyte Fluor™ 555-labeled	HiLyte Fluor™ 555-DAEFRHDSGYEVHHQKLVFFAEDVGSNK Ex/Em= 551 nm/567 nm	4131.6	60468-01 (0.1 mg)
β-Amyloid (1-28), HiLyte Fluor™ TR-labeled	HiLyte Fluor™ TR-DAEFRHDSGYEVHHQKLVFFAEDVGSNK Ex/Em= 584 nm/607 nm	3807.2	60464-01 (0.1 mg)
β-Amyloid (1-28)-Lys(HiLyte Fluor™ TR)	DAEFRHDSGYEVHHQKLVFFAEDVGSNK-K(HiLyte Fluor™ TR) Ex/Em= 584 nm/607 nm	3391.7	60745 (0.1 mg)
β-Amyloid (1-28), HiLyte Fluor™ 647-labeled	HiLyte Fluor™ 647-DAEFRHDSGYEVHHQKLVFFAEDVGSNK Ex/Em= 649 nm/674 nm	4265.8	60469 (0.1 mg)
[Gln <sup>11</sup> ]-β-Amyloid (1-28)	DAEFRHDSGYQVHHQKLVFFAEDVGSNK	3261.5	22821 (0.5 mg) 22822 (1 mg)
[Ala <sup>16,17,20</sup> ]-β-Amyloid (1-28)	DAEFRHDSGYEVHHQAAVFAEDVGSNK	3087.2	62890 (1 mg)
β-Amyloid (8-28)	SGYEVHHQKLVFFAEDVGSNK	2391.6	62887 (1 mg)
β-Amyloid (11-28)-Lys(Biotin)-NH <sub>2</sub>	EVHHQKLVFFAEDVGSNK-K(Biotin)-NH <sub>2</sub>	2437.8	62472 (0.5 mg)
β-Amyloid (12-28)	VHHQKLVFFAEDVGSNK	1955.2	24229 (0.5 mg) 24230 (1 mg)
Cys-β-Amyloid (12-28)	CVHHQKLVFFAEDVGSNK	2058.3	23548-01 (0.1 mg) 23547 (0.5 mg) 23548 (1 mg)
β-Amyloid (12-28)-Cys	VHHQKLVFFAEDVGSNKC	2058.3	23550-01 (0.1 mg) 23549 (0.5 mg) 23550 (1 mg)
β-Amyloid (17-28)	LVFFAEDVGSNK	1325.5	62447 (1 mg)
β-Amyloid (17-28)-Lys(Biotin)	LVFFAEDVGSNK-K(Biotin)	1680.0	62466 (0.5 mg)
β-Amyloid (18-28)	VFFAEDVGSNK	1212.3	61133 (1 mg)
Biotin-β-Amyloid (18-28)	Biotin-VFFAEDVGSNK	1438.6	62448 (1 mg)
Biotin-LC-β-Amyloid (18-28)	Biotin-LC-VFFAEDVGSNK	1551.8	62971 (1 mg)
β-Amyloid (1-8)-Cys	DAEFRHDSC	1079.1	62132 (1 mg)

## β-Amyloid Peptide Fragments

Product Name	Sequence	MW	Cat# (size)
β-Amyloid (1-9)	DAEFRHDSG	1033.0	61970 (1 mg)
β-Amyloid (1-9), HiLyte Fluor™ 488-labeled	HiLyte Fluor™ 488-DAEFRHDSG Ex/Em = 503 nm/528 nm	1389.4	63310 (0.1 mg)
β-Amyloid (1-9), HiLyte Fluor™ 555-labeled	HiLyte Fluor™ 555-DAEFRHDSG Ex/Em = 551 nm/567 nm	1501.6	63311 (0.1 mg)
β-Amyloid (1-9)-GG	DAEFRHDSGGG	1147.1	62138 (1 mg)
β-Amyloid (1-9)-K(Biotin-LC)	DAEFRHDSG-K(Biotin-LC)-NH <sub>2</sub>	1499.7	61973 (1 mg)
β-Amyloid (1-9)-Ala-NH <sub>2</sub>	DAEFRHDSGA-NH <sub>2</sub>	1103.1	62131 (1 mg)
β-Amyloid (1-10)-Cys	DAEFRHDSGYC	1299.4	62144 (1 mg)
β-Amyloid (1-10)-GG-K(Biotin)	DAEFRHDSGYGG-K(Biotin)	1664.8	62134 (1 mg)
β-Amyloid (1-10)-K(Biotin)	DAEFRHDSGY-K(Biotin)	1550.7	62135 (1 mg)
β-Amyloid (1-10)-KK	DAEFRHDSGYKK	1452.6	62137 (1 mg)
β-Amyloid (1-11)	DAEFRHDSGYE	1325.3	22819 (1 mg) 22820 (5 mg)
β-Amyloid (1-11), HiLyte Fluor™ 488-labeled	HiLyte Fluor™ 488-DAEFRHDSGYE	1681.7	63331 (0.1 mg)
β-Amyloid (1-11), HiLyte Fluor™ 555-labeled	HiLyte Fluor™ 555-DAEFRHDSGYE	1793.9	63334 (0.1 mg)
β-Amyloid (1-12)	DAEFRHDSGYEV	1424.5	62967 (1 mg)
β-Amyloid (1-12)-Cys-NH <sub>2</sub>	DAEFRHDSGYEVC-NH <sub>2</sub>	1526.6	63333 (1 mg)
β-Amyloid (1-12)-K(Biotin)-NH <sub>2</sub>	DAEFRHDSGYEV-K(Biotin)-NH <sub>2</sub>	1778.0	62973 (1 mg)
β-Amyloid (1-15)	DAEFRHDSGYEVHHQ	1826.9	61798 (1 mg)
Biotin-β-Amyloid (1-15)	Biotin-DAEFRHDSGYEVHHQ	2053.2	62461 (1 mg)
Biotin-LC-β-Amyloid (1-15)	Biotin-LC-DAEFRHDSGYEVHHQ	2166.4	62970 (1 mg)
β-Amyloid (1-16)-K(HiLyte Fluor™ 488)	DAEFRHDSGYEVHHQ-K(HiLyte Fluor™ 488), Ex/Em= 503 nm/528 nm	2311.4	62002-05 (1 mg)
β-Amyloid (1-16)	DAEFRHDSGYEVHHQK	1955.0	24225 (1 mg) 24226 (5 mg)
Biotin-β-Amyloid (1-16)	Biotin-DAEFRHDSGYEVHHQK	2181.3	62457 (1 mg)
Biotin-LC-β-Amyloid (1-16)	Biotin-LC-DAEFRHDSGYEVHHQK	2294.5	62458 (1 mg)
β-Amyloid (1-16)-K(Biotin-LC)	DAEFRHDSGYEVHHQK-K(Biotin-LC)-NH <sub>2</sub>	2421.7	62136 (1 mg)
β-Amyloid (1-16)-8 branched MAPS	DAEFRHDSGYEVHHQK-on 8 branched MAPS	16482.4	62474 (1 mg)
[Gln <sup>11</sup> ]-β-Amyloid (1-16)	DAEFRHDSGYQVHHQK	1954.1	25368 (0.5 mg) 25369 (1 mg)
β-Amyloid (1-16), HiLyte Fluor™ 488-labeled	HiLyte Fluor™ 488-DAEFRHDSGYEVHHQK	2311.4	63332 (0.1 mg)
β-Amyloid (1-16), HiLyte Fluor™ 555-labeled	HiLyte Fluor™ 555-DAEFRHDSGYEVHHQK	2423.6	63330 (0.1 mg)
β-Amyloid (1-17)	DAEFRHDSGYEVHHQKL	2068.2	61955 (1 mg)
β-Amyloid (1-17)-Cys	DAEFRHDSGYEVHHQKLC	2171.3	62473 (1 mg)
β-Amyloid (1-17), 5-FAM-labeled	5-FAM-DAEFRHDSGYEVHHQKL, Ex/Em = 494 nm/521 nm	2426.5	62952 (0.1 mg)
β-Amyloid (1-17), HiLyte Fluor™ 488-labeled	HiLyte Fluor™ 488-DAEFRHDSGYEVHHQKL, Ex/Em = 503 nm/528 nm	2424.6	62953 (0.1 mg)
β-Amyloid (1-20)	DAEFRHDSGYEVHHQKLVFF	2461.7	62456 (1 mg)
β-Amyloid (1-22)	DAEFRHDSGYEVHHQKLVFFAE	2661.9	62966 (1 mg)
β-Amyloid (1-23)-Gly	DAEFRHDSGYEVHHQKLVFFAEDG	2834.0	62141 (1 mg)

## β-Amyloid Peptide Fragments

Product Name	Sequence	MW	Cat# (size)
β-Amyloid (1-24)-Cys	DAEFRHDSGYEVHHQKLVFFAEDVC	2979.3	62475 (1 mg)
β-Amyloid (1-28)	<i>See large section of β-Amyloid (1-28) and Related Peptides on p. 8</i>		
β-Amyloid (1-33)	DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIG	3674.0	60250-05 (0.5 mg) 60250-1 (1 mg)
β-Amyloid (1-33)-Ala	DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGA	3745.1	62140 (1 mg)
β-Amyloid (1-34)	DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGL	3787.2	61799 (0.5 mg)
β-Amyloid (1-36)	DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMV	4017.5	60252-05 (0.5 mg) 60252-1 (1 mg)
β-Amyloid (1-37)	DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVG	4074.6	60251-05 (0.5 mg) 60251-1 (1 mg)
β-Amyloid (1-37)-Lys(Biotin), 5-FAM-labeled	5-FAM-DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVG- K(Biotin)	4787.3	63329 (0.1 mg)
β-Amyloid (1-38)	DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGG	4131.6	24233 (0.5 mg) 24234 (1 mg)
β-Amyloid (1-39)	DAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGV	4230.7	24295 (0.5 mg) 24296 (1 mg)
β-Amyloid (1-40) and (1-42)	<i>See large sections of β-Amyloid (1-42) &amp; (1-40) and Related Peptides on p. 3-7</i>		
β-Amyloid (4-10)	FRHDSGY	880.9	60226-1 (1 mg) 60226-5 (5 mg)
Cys-β-Amyloid (4-10)	CFRHDSGY	984.1	61979 (1 mg)
β-Amyloid (4-13)	FRHDSGYEVH	1246.3	62954 (1 mg)
β-Amyloid (4-24)	FRHDSGYEVHHQKLVFFAEDV	2560.8	62961 (1 mg)
β-Amyloid (5-14)	RHDSGYEVHH	1236.3	62965 (1 mg)
β-Amyloid (6-30)	HDSGYEVHHQKLVFFAEDVGSNKG	2772.0	62888 (1 mg)
β-Amyloid (7-22)	DSGYEVHHQKLVFFAE	1906.1	61803 (1 mg)
β-Amyloid (7-29)	DSGYEVHHQKLVFFAEDVGSNKG	2563.8	62889 (1 mg)
β-Amyloid (8-38)	SGYEVHHQKLVFFAEDVGSNKGAIIGLMVGG	3260.7	61879 (1 mg)
β-Amyloid (9-27)	GYEVHHQKLVFFAEDVGSN	2176.4	62886 (1 mg)
β-Amyloid (10-19)	YEVHHQKLVF	1299.5	62963 (1 mg)
β-Amyloid (10-20)	YEVHHQKLVFF	1446.7	25364 (0.5 mg) 25365 (1 mg)
Biotin-LC-β-Amyloid (10-20)	Biotin-LC-YEVHHQKLVFF	1786.2	62972 (1 mg)
β-Amyloid (10-26)	YEVHHQKLVFFAEDVGS	2005.2	62885 (1 mg)
β-Amyloid (10-35), HiLyte Fluor™ 488-labeled	HiLyte Fluor™ 488-YEVHHQKLVFFAEDVGSNKGAIIGLM Ex/Em = 503 nm/528 nm	3259.8	63306 (0.1 mg)
β-Amyloid (10-35), HiLyte Fluor™ 555-labeled	HiLyte Fluor™ 555-YEVHHQKLVFFAEDVGSNKGAIIGLM Ex/Em = 551 nm/567 nm	3372.0	63307 (0.1 mg)
β-Amyloid (11-22)	EVHHQKLVFFAE	1483.7	23956 (1 mg) 23957 (5 mg)
DABCYL-β-Amyloid (11-22)- EDANS	DABCYL-EVHHQKLVFFAE-EDANS, Ex/Em = 340 nm/490 nm upon cleavage	1983.0	23551-025 (0.25 mg) 23551 (1 mg)
β-Amyloid (11-25)	EVHHQKLVFFAEDVG	1755.0	62884 (1 mg)
β-Amyloid (12-20)	VHHQKLVFF	1154.4	61102 (1 mg)
β-Amyloid (12-22)	VHHQKLVFFAE	1354.6	62939 (1 mg)

## β-Amyloid Peptide Fragments (con't)

Product Name	Sequence	MW	Cat# (size)
β-Amyloid (12-24)	VHHQKLVFFAEDV	1568.8	62883 (1 mg)
β-Amyloid (13-22)	HHQKLVFFAE	1255.5	62894 (1 mg)
β-Amyloid (13-23)	HHQKLVFFAED	1370.5	62882 (1 mg)
β-Amyloid (13-28)	HHQKLVFFAEDVGSNK	1856.1	61802 (1 mg)
β-Amyloid (13-29)-Gly-Cys	HHQKLVFFAEDVGSNKGCC	2073.3	61800 (1 mg)
β-Amyloid (14-21)	HQKLVFFA	989.2	62893 (1 mg)
β-Amyloid (14-22)	HQKLVFFAE	1118.3	62881 (1 mg)
β-Amyloid (14-23)	HQKLVFFAED	1233.4	62024 (1 mg)
[Gln <sup>22</sup> ]-β-Amyloid (14-23)	HQKLVFFAQD	1232.4	62891 (1 mg)
β-Amyloid (14-25)	HQKLVFFAEDVG	1389.6	62760 (1 mg)
Ac-β-Amyloid (15-20)	Ac-QKLVFF	823.0	60227-1 (1 mg) 60227-5 (5 mg)
β-Amyloid (15-21)	QKLVFFA	852.0	60228-1 (1 mg) 60228-5 (5 mg)
β-Amyloid (15-23)	QKLVFFAED	1096.3	62880 (1 mg)
[Gln <sup>22</sup> ]-β-Amyloid (15-23)	QKLVFFAQD	1095.3	62892 (1 mg)
β-Amyloid (15-25)	QKLVFFAEDVG	1252.4	62906 (1 mg)
Biotin-LC-β-Amyloid (15-25)	Biotin-LC-QKLVFFAEDVG	1591.9	62907 (1 mg)
β-Amyloid (15-26)-Lys(Biotin)-NH <sub>2</sub>	QKLVFFAEDVGS-K(Biotin)-NH <sub>2</sub>	1693.0	62469 (0.5 mg)
β-Amyloid (15-36)	QKLVFFAEDVGSNKGAIIGLMV	2336.8	62023 (1 mg)
β-Amyloid (16-20)	KLVFF	652.8	60229-1 (1 mg) 60229-5 (5 mg)
Ac-K(Me) <sup>16</sup> , N-Me-V <sup>18</sup> -β-Amyloid (16-20)-NH <sub>2</sub>	Ac-K(Me)-L-(N-Me-V)-FF-NH <sub>2</sub>	721.9	61344 (1 mg)
β-Amyloid (16-20), d-isomers	klvff	652.8	61343 (1 mg)
β-Amyloid (16-20), HiLyte Fluor™ 488-labeled	HiLyte Fluor™ 488-KLVFF Ex/Em = 503 nm/528 nm	1009.2	63304 (1 mg)
β-Amyloid (16-20), HiLyte Fluor™ 555-labeled	HiLyte Fluor™ 555-KLVFF Ex/Em = 551 nm/567 nm	1121.4	63305 (1 mg)
β-Amyloid (16-22)	KLVFFAE	853.0	62897 (1 mg)
β-Amyloid (16-23)	KLVFFAED	968.1	61801 (1 mg)
β-Amyloid (16-24)	KLVFFAEDV	1067.3	62139 (1 mg)
β-Amyloid (16-26)	KLVFFAEDVGS	1211.4	61804 (1 mg)
β-Amyloid (17-21)	LVFFA	595.7	60230-1 (1 mg) 60230-5 (5 mg)
β-Amyloid (17-21)-K(Biotin)	LVFFA-K(Biotin)	950.2	62467 (1 mg)
[Pro <sup>18</sup> , Asp <sup>21</sup> ]-β-Amyloid (17-21)	LPFFD	637.7	60618 (1 mg)
Ac-[Pro <sup>18</sup> , Asp <sup>21</sup> ]-β-Amyloid (17-21)-NH <sub>2</sub> , iAb5p	Ac-LPFFD-NH <sub>2</sub>	678.8	61174 (1 mg)
Ac-[Pro <sup>18</sup> , N-Me Phe <sup>19</sup> ]-β-Amyloid (17-21)-NH <sub>2</sub> , iAb5p-A1	Ac-LP-(NMe-F)-FD-NH <sub>2</sub>	692.8	60620 (1 mg)
β-Amyloid (17-24)	LVFFAEDV	939.1	61978 (1 mg)
Biotin-β-Amyloid (17-24)	Biotin-LVFFAEDV	1165.4	61980 (1 mg)

## β-Amyloid Peptide Fragments (con't)

Product Name	Sequence	MW	Cat# (size)
Ac-β-Amyloid (20-29)-NH <sub>2</sub>	Ac-FAEDVGSNKG-NH <sub>2</sub>	1064.1	60231-1 (1 mg) 60231-5 (5 mg)
β-Amyloid (22-35)	EDVGSNKGAIIGLM	1403.6	22823 (1 mg) 22824 (5 mg)
Biotin-LC-β-Amyloid (22-41)	Biotin-LC-EDVGSNKGAIIGLMVGGVVI	2267.8	62455 (1 mg)
β-Amyloid (23-37)	DVGSNKGAIIGLMVG	1430.7	62761 (1 mg)
[Ile <sup>34</sup> ]-β-Amyloid (25-34)	GSNKGAIIGI	929.1	61077-1 (1 mg) 61077-5 (5 mg)
β-Amyloid (25-35)	GSNKGAIIGLM	1060.3	24227 (1 mg) 24228 (5 mg)
β-Amyloid (25-35) • HCl	GSNKGAIIGLM • HCl	1060.3 • 36.5	21647 (1 mg) 23212 (5 mg)
β-Amyloid (25-35), scrambled	MAKGINGISGL	1060.3	61971 (1 mg)
β-Amyloid (35-25), or β-Amyloid (25-35) reverse	MLGIIAGKNSG	1060.3	25366 (0.5 mg) 25367 (1 mg)
Biotin-β-Amyloid (25-35)	Biotin-GSNKGAIIGLM	1286.6	62451 (1 mg)
β-Amyloid (25-35), HiLyte Fluor™ 488-labeled	HiLyte Fluor™ 488-GSNKGAIIGLM Ex/Em = 503 nm/528 nm	1416.7	63308 (0.1 mg)
β-Amyloid (25-35), HiLyte Fluor™ 555-labeled	HiLyte Fluor™ 555-GSNKGAIIGLM Ex/Em = 551 nm/567 nm	1528.9	63309 (0.1 mg)
[Phe <sup>34</sup> ]-β-Amyloid (25-35)	GSNKGAIIGFM	1094.3	61984 (1 mg)
[Nle <sup>35</sup> ]-β-Amyloid (25-35)	GSNKGAIIGL-Nle	1042.3	22976 (1 mg) 22977 (5 mg)
β-Amyloid (26-37)	SNKGAIIGLMVG	1159.4	62920 (1 mg)
β-Amyloid (26-38)	SNKGAIIGLMVGG	1216.5	62919 (1 mg)
β-Amyloid (26-39)	SNKGAIIGLMVGGV	1315.6	62916 (1 mg)
β-Amyloid (26-43)	SNKGAIIGLMVGGVVIAT	1700.1	62917 (1 mg)
β-Amyloid (29-37)	GAIIGLMVG	830.1	62924 (1 mg)
β-Amyloid (29-38)	GAIIGLMVGG	887.1	62923 (1 mg)
β-Amyloid (29-39)	GAIIGLMVGGV	986.3	62921 (1 mg)
β-Amyloid (30-34)	AIIGL	485.6	61977 (1 mg)
β-Amyloid (31-35)	IIGLM	545.7	25360 (1 mg) 25361 (5 mg)
Propionyl-β-Amyloid (31-34)-NH <sub>2</sub>	Propionyl-IIGL-NH <sub>2</sub>	469.6	60232-1 (1 mg) 60232-5 (5 mg)
β-Amyloid (32-35)	IIGLM	432.6	25362 (1 mg) 25363 (5 mg)
β-Amyloid (35-43)	MVGGVVIAT	846.1	62759 (1 mg)
β-Amyloid (37-43)	GGVVIAT	615.7	61030 (1 mg)



## Amyloid Toxicity Inhibitor Peptides

Product Name	Sequence	MW	Cat# (size)
Amyloid Toxicity Inhibitor Peptide 11	RGTFEGKF-NH <sub>2</sub>	940.1	62834 (1 mg)
Amyloid Toxicity Inhibitor Peptide 13	RGTYEGKY-NH <sub>2</sub>	872.0	62835 (1 mg)
Amyloid Toxicity Inhibitor Peptide 110	RGTWEGKW-NH <sub>2</sub>	1018.2	62837 (1 mg)
Amyloid Toxicity Inhibitor Peptide 111	RGTYEGKY-NH <sub>2</sub>	972.1	62838 (1 mg)

## Amyloid Precursor Protein (APP) & Amyloid Precursor-Like Protein (APLP)

Product Name	Sequence	MW	Cat# (size)
APP (44-62)	HMNVQNGKWDSDPSGKTCTC	2105.3	61983 (1 mg)
APP (96-110)	Ac-NWCKRGRKQCKTHPH-NH <sub>2</sub> (Disulfide bond: 3-10)	1918.2	25372 (0.5 mg) 25373 (1 mg)
APP (135-155)	FLHQERMDVCETHLHWHTVAK	2618.0	60236-1 (1 mg) 60236-5 (5 mg)
APP (328-332)	RERMS	677.8	25376 (0.5 mg) 25377 (1 mg)
APP (394-410)	AKERLEAKHRERMSQWM	2186.6	60233-1 (1 mg) 60233-5 (5 mg)
APP (667-676) FRET Peptide	Mca-SEVKMDAEFR-Dap(Dnp)-NH <sub>2</sub> Mca, Ex/Em = 330 nm/ 390 nm upon cleavage	1678.8	62075 (1 mg)
[Asn <sup>670</sup> , Leu <sup>671</sup> ]-RE(EDANS)-APP (668-675)-K(DABCYL)-R FRET Peptide	R-E(EDANS)-EVNLDAEF-K(DABCYL)-R EDANS, Ex/Em = 340 nm/ 490 nm upon cleavage	2005.3	62236 (0.5 mg)
APP (667-676)	SEVKMDAEFR	1211.4	62065 (1 mg)
APP (667-676)-Cys	SEVKMDAEFRC	1314.5	62059 (1 mg)
APP (667-676), Dnp-labeled	SEVKMDAEFR-DAP(DNP)-KK	1719.9	62074 (1 mg)
APP (668-675), Swedish Mutation	EVNLDAEF	936.0	62515 (1 mg)
APP (667-676), Swedish Mutation	SEVNLDAEFR	1179.3	62060 (1 mg)
APP (721-770)	VMLKKKQYTSIHGGVVEVDAAVTPEERHLSKMQQNGYENPTYK FFEQMQN	5910.7	63322 (0.5 mg)
APP (732-751)	HHGVVEVDAAVTPEERHLSK	2210.5	25378 (0.5 mg) 25379 (1 mg)
[Phe <sup>743</sup> ]-APP (734-751)	GVVEVDAAVFPEERHLSK	1982.2	62289 (1 mg)
APP (740-770)	AAVTPEERHLSKMQQNGYENPTYKFFEQMQN	3717.1	62073 (1 mg)
APP (741-770)	AVTPEERHLSKMQQNGYENPTYKFFEQMQN	3646.1	63303 (1 mg)
Cys-APP (751-770)	CKMQQNGYENPTYKFFEQMQN	2629.0	63302 (1 mg)
Ac-APP (756-762)-NH <sub>2</sub>	Ac-GYENPTY-NH <sub>2</sub>	883.9	63301 (1 mg)
APLP1 (594-610)	GGGSLIVLSLLLLRKKK	1795.3	62913 (1 mg)
APLP2 (706-721)	AIATVIVISLVMLRKR	1783.3	62912 (1 mg)

## Collagen-like Alzheimer Amyloid Plaque Component Precursor (CLAC-P)

Product Name	Sequence	MW	Cat# (size)
NC1 CLAC-P (14-27)	EPRSEDPTPAEQHC	1595.7	62903 (1 mg)
NC2-1 CLAC-P (171-183)	GCNHGFLSADQQLIK	1630.9	62904 (1 mg)
NC2-2 CLAC-P (155-169)	CKGEQGDQGPRMVFPK	1777.1	62905 (1 mg)
NC3 CLAC-P (430-443)	DYNGNLHEALQRITC	1746.9	62901 (1 mg)
NC4 CLAC-P (641-654)	LGPDGLPMPGCWQK	1498.8	62902 (1 mg)

## Islet Amyloid Polypeptides (IAPP)

Product Name	Sequence	MW	Cat# (size)
hIAPP (8-20)	ATQRLANFLVHSS	1443.6	62900 (1 mg)
hIAPP (22-27)	NFGAIL	633.8	62898 (1 mg)
[NMeG <sup>24</sup> ·NMeI <sup>26</sup> ]-hIAPP (22-27)	NF-(NMe-G)-A-(NMe-I)-L	661.8	61937 (1 mg)
hIAPP (23-27)	FGAIL	519.7	62899 (1 mg)
IAPP (38-74), Amylin, mouse, rat	KCNTATCATQRLANFLVRSSNNLGPVLPPTNVGSNTY-NH <sub>2</sub> (Disulfide bridge: 2-7)	3920.5	60253-05 (0.5 mg) 60253-1 (1 mg)

## Humanins

Product Name	Sequence	MW	Cat# (size)
Humanin, HN	MAPRGFSCLLLLLSEIDLVPKRRA	2687.3	60886 (1 mg)
[Ala <sup>8</sup> ]-Humanin, sHNA	MAPRGFSALLLLTSEIDLVPKRRA	2665.2	60888 (1 mg)
[Gly <sup>14</sup> ]-Humanin, sHNG	MAPRGFSCLLLLTGEIDLVPKRRA	2657.3	60887 (1 mg)
[D-Ser <sup>14</sup> ]-Humanin	MAPRGFSCLLLLS-EIDLVPKRRA	2687.3	61927 (1 mg)
Colivelin	SALLRSIPAPAGASRLLLLTGEIDL	2645.1	61930 (1 mg)
AGA-(C8R) HNG17	PAGASRLLLLTGEIDL	1736.1	61928 (1 mg)

## Other $\beta$ -Amyloid Related Peptides

Product Name	Sequence	MW	Cat# (size)
A $\beta$ -DIP (183-196)	AEIPEEHIPHQIQ	1668.8	62896 (1 mg)
A $\beta$ -DIP (768-776)	MLTRILVIREIQEAIIVANASTMN	2658.2	62895 (1 mg)
Amylin (1-37)-NH <sub>2</sub> , human	KCNTATCATQRLANFLVHSSNFGAILSSTNVGSNTY-NH <sub>2</sub> (Disulfide bridge: 2-7)	3903.3	60254-1 (1 mg)
Amylin Peptides	<i>Amylin's can be found online: <a href="#">Peptides</a>&gt;<a href="#">Catalog Peptides</a>&gt;<a href="#">Amylin Peptides</a></i>		
Amyloid Forming Peptide	GNNQQNY	836.8	62762 (1 mg)
$\beta$ -Amyloid Fibrillogenesis Inhibitor	Ac-K-(NMe-L)-V-(NMe-F)-F-NH <sub>2</sub>	722.9	61103 (1 mg)
$\beta$ -Amyloid P Component (27-38)-NH <sub>2</sub>	EKPLQNFTLCFR-NH <sub>2</sub>	1494.8	60237-1 (1 mg) 60237-5 (5 mg)
Non- $\beta$ -Amyloid Component of AD (NAC)	EQVTNVGGAVVTGVTAVAQKTVEGAGSIIAAATGFV	3373.8	25370 (0.1 mg) 25371 (0.5 mg)
Parallel Topology $\beta$ -Amyloid Modified Peptide	CHQKLVFFAEDYNGKDEAFFVLKQHW	3200.6	61807 (1 mg)
Anti-Parallel Topology $\beta$ -Amyloid Modified Peptide II	CHQKLVFFAEDYNGKHQKLVFFAED	3014.4	61805 (1 mg)
ADNF, Activity-Dependent Neurotrophic Factor (1-14)	VLGGGSALLRSIPA	1310.6	61858 (1 mg)
ADNF (6-14)	SALLRSIPA	927.1	61929 (1 mg)
$\beta$ -Amyloid (1-40) Binding Peptide	DWGKGGRWRLWPGASGKTEA	2215.5	62426 (1 mg)
$\beta$ -Amyloid (1-40) Binding Peptide, Biotin-labeled	Biotin-DWGKGGRWRLWPGASGKTEA	2441.8	62427 (1 mg)
Cys-containing $\beta$ -Amyloid (1-40) Binding Peptide	AECDWGGKGGRWRLWPGASGKTEACGP	2776.1	62428 (1 mg)
Cys-containing $\beta$ -Amyloid (1-40) Binding Peptide, Biotin-labeled	Biotin-AECDWGGKGGRWRLWPGASGKTEACGP	3002.4	62429 (1 mg)
Betanova (BET)	RGWSVQNGKYTNNGKTTEGR	2253.4	62531 (1 mg)
Cys- $\beta$ -hairpin (BHA), Protein G B1 Domain (41-56)	CGEWTYDDATKTFTVTE	1968.1	62533 (1 mg)
chA $\beta$ (30-16), Hydrophobic Complementary Neutralizing Peptide	CTFVRTHIFCKEHQF	1896.2	61639 (1 mg)
Calpastatin (184 - 210), CS Peptide, acetylated, human	Ac-DPMSTYIEELGKREVTIPPKYRELLA-NH <sub>2</sub>	3177.6	60842 (0.5 mg)

## Other $\beta$ -Amyloid Related Peptides (con't)

Product Name	Sequence	MW	Cat# (size)
CD44	LLALALILAVCIIVNSRRR	2065.5	63337 (1 mg)
Galanin Peptides	<i>Galanin's can be found online: Peptides&gt;Catalog Peptides&gt;PrP (Prion Protein) Fragments</i>		
HspB8 (184-196), human	NELPQDSQEVCT	1463.6	62592 (1 mg)
PrP, Prion Protein fragments	<i>PrP's can be found online: Peptides&gt;Catalog Peptides&gt;PrP (Prion Protein) Fragments</i>		

## Substrates and Inhibitors

Product Name	Sequence	MW	Cat# (size)
Crosstide	GRPRTSSFAEG	1164.2	60209-1 (1 mg) 60209-5 (5 mg)
Crosstide, Biotin-labeled	Biotin-GRPRTSSFAEG	1390.5	60513-1 (1 mg) 60513-5 (5 mg)
Crosstide, 5-FAM-labeled	5-FAM-GRPRTSSFAEG	1522.6	60435-1 (1 mg) 60435-5 (5 mg)
Crosstide, 5-TAMRA-labeled	5-TAMRA-GRPRTSSFAEG	1576.7	60262-1 (1 mg) 60262-5 (5 mg)
GSK-3, Biotin-labeled, phosphorylated	Biotin-RRAAEELDSRAG-pS-PQL	2062.2	23966 (1 mg) 23967 (5 mg)
GSK-3, biotin-LC-labeled, phosphorylated	Biotin-LC-RRAAEELDSRAG-pS-PQL	2175.4	60225-1 (1 mg) 60225-5 (5 mg)
GSK-3, 5-FAM-labeled	5-FAM-RRAAEELDSRAG-pS-PQL-NH <sub>2</sub> , Ex/Em = 494 nm/521 nm	2193.2	61740 (1 mg)
Notch 1 (1735-1752)	VLLFFVGCGLLSRKR	2119.7	62914 (1 mg)
Presenilin 1 (345-357), human	GPHRSTPESRAAV	1364.5	60518-1 (1 mg) 60518-5 (5 mg)
Presenilin 1 (345-357), human, 5-FAM-labeled	5-FAM-GPHRSTPESRAAV	1722.8	60519-1 (1 mg) 60519-5 (5 mg)
Presenilin 1 (345-357), human, Biotin-labeled	Biotin-GPHRSTPESRAAV	1590.8	60521-1 (1 mg) 60521-5 (5 mg)
Presenilin 1 (345-357), human, 5-TAMRA-labeled	5-TAMRA-GPHRSTPESRAAV	1777.0	60520-1 (1 mg) 60520-5 (5 mg)
$\beta$ -Secretase Substrate 1a	Mca-EVKVDAEF-K(Dnp) Mca, Ex/Em = 325 nm/ 393 nm upon cleavage	1447.5	60268 (1 mg)
$\beta$ -Secretase Substrate, DA-A	VVEVDAAVTP	999.1	62080 (1 mg)
$\gamma$ -Secretase Substrate	GGVVIATV-K(5-FAM)-rrr-NH <sub>2</sub>	1668.9	62718 (1 mg)
APP (666-677) FRET Peptide	Mca-SEVKMDAEFR-Dap(Dnp)-NH <sub>2</sub> Mca, Ex/Em = 325 nm/ 393 nm upon cleavage	1678.8	62075 (1 mg)
[Asn <sup>670</sup> , Leu <sup>671</sup> ]-RE(EDANS)-APP (668-675)-K(DABCYL)-R	RE(EDANS)EVNLDAEFK(DABCYL)R EDANS, Ex/Em = 340 nm/ 490 nm upon cleavage	2005.3	62236 (1 mg)
APP (667-676), Dnp-labeled	SEVKMDAEFR-DAP(DNP)-KK	1719.9	62074 (1 mg)
Mca-SEVNLDAEFR-K(Dnp)-RR-NH <sub>2</sub>	Mca-SEVNLDAEFR-K(Dnp)-RR-NH <sub>2</sub> Mca, Ex/Em = 325 nm/ 393 nm upon cleavage	2001.1	24149 (1 mg) 24150 (5 mg)
DABCYL-KTEEISEVNLDAEF-EDANS	DABCYL-KTEEISEVNLDAEF-EDANS EDANS, Ex/Em = 340 nm/ 490 nm upon cleavage	2123.1	24197-025 (0.25 mg) 24197 (1 mg)
$\beta$ -Secretase Inhibitor 1	KTEEISEVN-Sta-VAEF, Sta = statine	1651.9	23958 (1 mg) 23959 (5 mg)
$\beta$ -Secretase Inhibitor 2	KTEEISEVN-Sta-VAEF-NH <sub>2</sub> , Sta = statine	1650.8	23960 (1 mg) 23961 (5 mg)
Ac-[Pro <sup>18</sup> , Asp <sup>21</sup> ]- $\beta$ -Amyloid (17-21)-NH <sub>2</sub> , iAb5p	Ac-LPFFD-NH <sub>2</sub>	678.8	61174 (1 mg)
Ac-[Pro <sup>18</sup> , N-Me Phe <sup>19</sup> ]- $\beta$ -Amyloid (17-21)-NH <sub>2</sub> , iAb5p-A1	Ac-LP-(NMe-F)-FD-NH <sub>2</sub>	692.8	60620 (1 mg)

## DHL™ Fluorescent $\beta$ -Amyloid Sampler Kits

The DHL™ Fluorescent  $\beta$ -Amyloid (1-40) or  $\beta$ -Amyloid (1-42) Sampler Kits provide researchers, in one convenient package, three fluorophore N-terminally labeled A $\beta$ 's (1-40) or (1-42), one N-terminal biotin-labeled A $\beta$  (1-40) or (1-42), two unlabeled control peptides and a solvent for dissolving the peptides. A stock concentration of 100  $\mu$ M is obtained for each peptide by dissolving in 5  $\mu$ l of the provided solvent and adding 45  $\mu$ l deionized water. This reconstituted stock solution may be stored at -20°C for up to one week.

Fluorophore labeled  $\beta$ -amyloid peptides have been used in investigating A $\beta$ 's aggregation (1), microglial activation, phagocytosis (2), and A $\beta$  generation and clearance. For immunofluorescence phagocytosis assay, dilute the fluorophore labeled  $\beta$ -amyloid stock solution in serum-free culture medium to 10-1,000 nM, and let the peptide(s) aggregate for 1 hr at room temperature (2). The aggregated A $\beta$  is first vortexed before adding to the microglial culture. The uptake of  $\beta$ -amyloid in the cells can be examined by fluorescent microscopy over time. Alternatively, cells can be detached and analyzed by flow cytometry. For other applications, researchers need to establish their own protocols.

### DHL™ Fluorescent $\beta$ -Amyloid (1-40) Sampler Kits, cat# 72070

Catalog #	Peptide	Ex/Em (nm/nm)
24236	Unlabeled $\beta$ -amyloid (1-40)	N/A
24626	Scrambled $\beta$ -amyloid (1-40) AEGDSHVLKEGAYMEIFDVQGHVFGGKIFRVVDLGSHNVA	N/A
23511	Biotin- $\beta$ -amyloid (1-40)	N/A
23513	5-FAM- $\beta$ -amyloid (1-40)	494/521
60491	HiLyte Fluor™ 488- $\beta$ -amyloid (1-40)	503/528
60488	5-TAMRA- $\beta$ -amyloid (1-40)	544/572

### DHL™ Fluorescent $\beta$ -Amyloid (1-42) Sampler Kits, cat# 72071

Catalog #	Peptide	Ex/Em (nm/nm)
24224	Unlabeled $\beta$ -amyloid (1-42)	N/A
25382	Scrambled $\beta$ -amyloid (1-42) AIAEGDSHVLKEGAYMEIFDVQGHVFGGKIFRVVDLGSHNVA	N/A
23524	Biotin- $\beta$ -amyloid (1-42)	N/A
23526	5-FAM- $\beta$ -amyloid (1-42)	494/521
60479	HiLyte Fluor™ 488- $\beta$ -amyloid (1-42)	503/528
60476	5-TAMRA- $\beta$ -amyloid (1-42)	544/572

#### References:

1. Frost, D. et al. *Eur. J. Biochem.* **270**, 654 (2003).
2. Li, R. *J. Neurochem.* **75**, 1447 (2000).

## SensoLyte™ 520 $\alpha$ -Secretase or TACE Assay Kit

TACE (TNF- $\alpha$  converting enzyme), ADAM17 or  $\alpha$ -secretase belongs to the ADAM (A Disintegrin and Metalloprotease) family of proteins, which are involved in myogenesis, neurogenesis, fertilization through the ectodomain shedding of cell surface proteins (1). TACE, the first 'shedase' to be identified and the predominant protease responsible for the generation of soluble mature TNF- $\alpha$  (2), plays a crucial role in acute and chronic inflammation. Since TNF- $\alpha$  is a crucial mediator in the inflammatory process, considerable efforts have been made in the research and development of anti-TNF- $\alpha$  agents, for the purpose of reducing the severity of inflammatory responses in disease states (3, 4). The inhibition of TACE by a pharmacological agent may represent an alternative approach to modulate the effect of TNF- $\alpha$  (5). TACE is also responsible for the proteolytic cleavage of amyloid precursor protein, L-selectin, transforming growth factor- $\alpha$  (1, 6, 7).

The Sensolyte™ 520 TACE Activity Assay Kit is a homogeneous assay that can be used to detect the activity of TACE and for screening of TACE inhibitors. It contains a QXL™ 520/5-FAM FRET substrate, derived from a sequence surrounding the cleavage site of TACE (8). In the intact FRET peptide, the fluorescence of 5-FAM is quenched by QXL™ 520. Active TACE cleaves FRET substrate into two separate fragments resulting in an increase of 5-FAM fluorescence which can be monitored at Ex/Em= 490 nm/520 nm. The long wavelength fluorescence of 5-FAM is less interfered by the autofluorescence of cellular components and test compounds.

	SensoLyte™ 520 TACE ( $\alpha$ -Secretase) Activity Assay Kit Cat# 72085
FRET pair	QXL™ 520/5-FAM
Ex/Em (nm/nm)	490/520

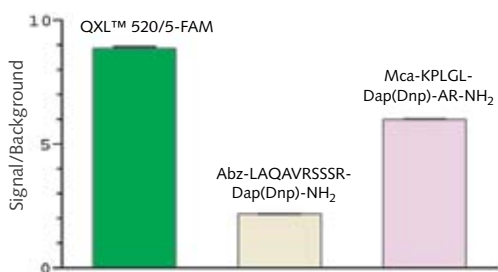


Figure 2. Comparison of three TACE assay kits. The Sensolyte™ 520 TACE Assay Kit contains the QXL™ 520/5-FAM FRET substrate, which is clearly superior to two FRET substrates used in other assay kits.

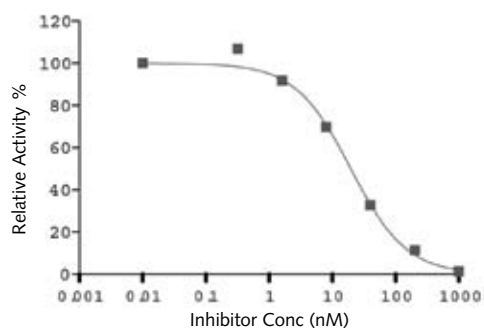


Figure 3. TAPI-0 inhibition of TACE activity measured with Sensolyte™ 520 TACE Activity Assay Kit (TAPI-0 is a patented product of Research Corporation Technologies).

### Related Products

$\alpha$ -Secretase Substrate, Mca-HQKLFFFAK(Dnp), Ex/Em=325 nm/393 nm, cat# 60271 (1 mg).

TACE FRET Substrate I, DABCYL-LAQAVRSSSR-EDANS, Ex/Em=335 nm/490 nm, cat# 25043 (1mg), 25349 (5 mg).

Anti-TACE (CT), cat# 28075.

Anti-Amyloids, cat# 53224, 54294-54295.

Anti-APPs, cat# 54095-54096.

Anti-Tau's: See p. 20 or search online by typing "anti-Tau" in the search box.

SensoLyte™ Cathepsin D, S Assay Kits, cat# 72097-72100.

### References:

1. Peschon, JJ. et al. *Science* **282**, 1281 (1998).
2. Moss, ML. et al. *Nature* **385**, 733 (1997).
3. Feldman, M. et al. *Transplant Proc.* **30**, 4126 (1998).
4. Siegel, SA. et al. *Cytokine* **7**, 15 (1995).
5. Levin, JJ. et al. *Bioorg. Med. Chem. Lett.* **13**, 2799 (2003).
6. Buxbaum, JD. et al. *J. Biol. Chem.* **273**, 27765 (1998).
7. Smalley, DM. and K. Ley, *J. Cell. Mol. Med.* **9**, 255 (2005).
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## SensoLyte™ 520 $\beta$ -Secretase Assay Kit

Amyloid Precursor Protein, APP, a protein of about 770 amino acids, is cleaved by  $\alpha$ -Secretase and  $\beta$ -Secretase.  $\beta$ -Secretase is also known as BACE1 ( $\beta$ -secretase APP cleaving enzyme) or memapsin.  $\alpha$ -Secretase processes the majority of APP, producing a 83-amino acid C-terminal fragment, C83; while only a small amount is processed by  $\beta$ -Secretase, producing a 99-amino acid C-terminal fragment, C99. Subsequent cleavages of C83 and C99 by  $\gamma$ -Secretase produces a 3-kD (p3) protein in the former and a 4-kD ( $\beta$ -amyloid) protein in the latter and a C-terminal that is 57-59 residues long in both fragments (1-2). The 4-kD consists of A $\beta$  which are 39 to 42 amino acids in length, with A $\beta$  1-42 being the major component of amyloid plaques which accumulates in neurons of Alzheimer's diseased brain (3, 4). Thus,  $\beta$ -secretase is an important target for developing drugs for Alzheimer's Disease.

The Sensolyte™ 520  $\beta$ -Secretase Assay Kit provides a convenient assay for HTS of  $\beta$ -secretase inhibitors and for the continuous quantification of  $\beta$ -secretase activity using a HiLyte Fluor™ 488/QXL™ 520 based FRET substrate. The sequence of this FRET peptide is derived from the  $\beta$ -secretase cleavage site on the Swedish APP mutation (5, 6). This mutation enhances  $\beta$ -secretase to process APP and results in an early onset of AD. In the FRET peptide, the fluorescence of HiLyte Fluor™ 488 is quenched by QXL™ 520 until this peptide is cleaved into two separate fragments by  $\beta$ -secretase at the Leu-Asp bond. Upon cleavage, the fluorescence of HiLyte Fluor™ 488 is recovered, and can be continuously monitored at Ex/Em = 488 nm/520 nm. The assays are performed in a convenient 96-well microplate format. 384-well or 1536-well format can also be used with minor modifications.

	SensoLyte™ 520 $\beta$ -Secretase Assay Kit Cat# 71144
FRET pair	HiLyte Fluor™ 488/QXL™ 520
Ex/Em (nm/nm)	488/520

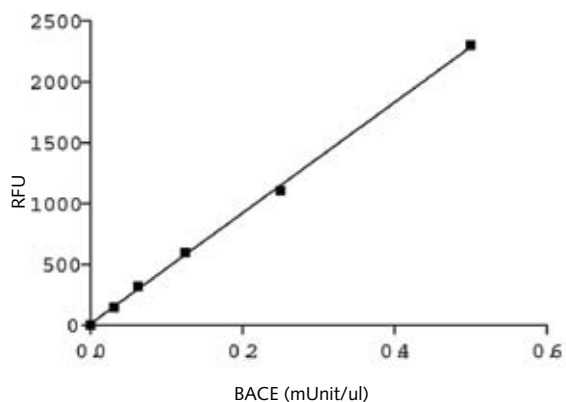


Figure 4. Sensitivity of the assay have been tested using serial dilution of BACE. FRET substrate was incubated with the indicated amount of BACE at 37C and fluorescence was measured after 40 min (FlexStation 384II, Molecular Devices). Sensitivity of the Sensolyte™ 520  $\beta$ -Secretase assay was 0.03 mU/ul.

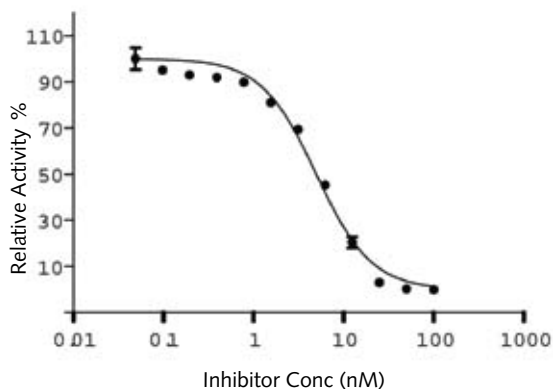


Figure 5. Inhibitor studies. To validate assay for inhibitor screening, FRET substrate (20 mM) was incubated with enzyme in the presence of a secretase inhibitor (cat# 23960). Kinetic readings were taken every 5 min for 30 min at 37C (FlexStation 384II, Molecular Devices). The calculated IC<sub>50</sub> was 5.62 nM.

### Related Products

$\beta$ -Secretase Substrate 1a (control), Mca-EVKVDAEF-K(Dnp), Ex/Em=325 nm/393 nm, cat# 60268 (1 mg).

$\beta$ -Secretase Inhibitor 1, KTEEISEVN-Sta-VAEF (Sta = statine), cat# 23958 (1 mg), cat# 23959 (5 mg).

$\beta$ -Secretase Inhibitor 2, KTEEISEVN-Sta-VAEF-NH<sub>2</sub> (Sta = statine), cat# 23960 (1 mg), cat# 23961 (5 mg).

SensoLyte™ Cathepsin D, S Assay Kits, cat# 72097-72100.

### References:

1. Selkoe DJ. *Nature* **399**, A23 (1999).
2. Suh, Y-H. and F. Checler, *Pharmacol. Rev.* **54**, 469 (2002).
3. Suzuki, N. et al. *Science* **264**, 1336 (1994).
4. Iwatsubo, T. et al. *Neuron* **13**, 45 (1994).
5. Citron, M. et al. *Nature (London)* **360**, 672 (1992).
6. Mullan, M. et al. *Nat. Genet.* **1**, 345 (1992).

## Anti-Tau Antibodies

Complementing one of the world's most comprehensive collections of  $\beta$ -amyloid peptides, this new selection of phospho- and non-phospho-specific Tau antibodies demonstrates AnaSpec's commitment to delivering integrated solutions for Alzheimer research. Rabbit anti-Phospho-Tau antibodies raised against synthetic phosphopeptides derived from the human Tau sequence at the following sites: Thr181, Ser198, Ser199/202, Ser202, Thr205, Thr212, Ser214, Thr217, Ser262, Ser356, Ser396, Ser400, and Ser404.

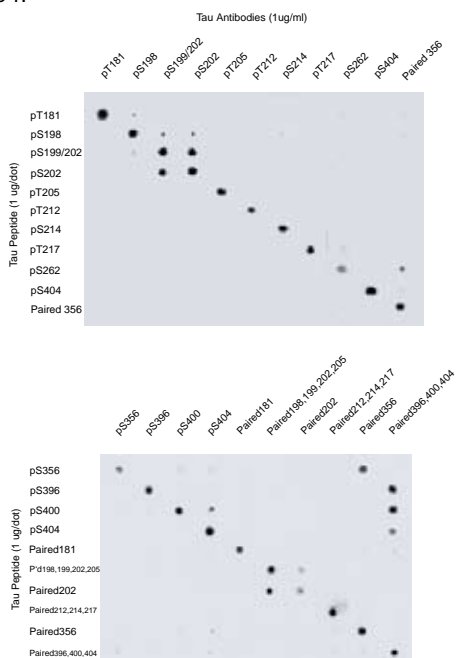


Figure 6. Dot blots of Tau Antibodies.

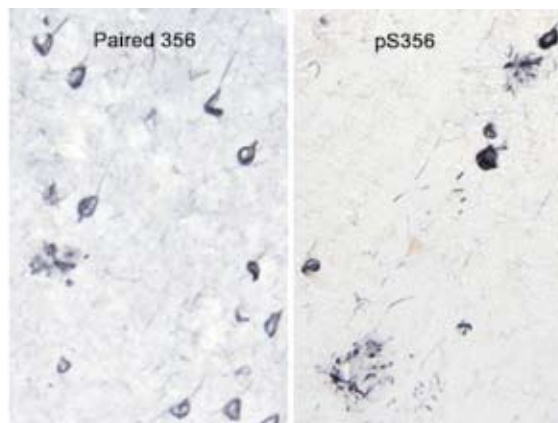


Figure 7. IHC of AD mid-temporal cortex probed with anti-Tau paired (Ser356, cat# 54976, 50 ug; cat# 54976-025, 25 ug) and anti-Tau (pSer356, cat# 54975, 50 ug; cat# 54975-025, 25 ug). Detection using goat anti-rabbit biotinylated secondary antibody, followed by incubation with avidin-biotinylated-HRP complex. Visualization by heavy metal intensification of DAB, 40x objective. (Courtesy of Dr. C. Schwab in Dr. Patrick L. McGeer's Kinsmen Laboratory of Neurological Research, University of British Columbia, Vancouver, Canada).

Product	Cat# for 50 ug	Cat# for 25 ug	Type*	Species Reactivity	Application
Anti-Tau	53884	53884-025	m	Hu	IHC, WB
Anti-Tau (pThr181)	54960	54960-025	p	Hu, Ms, Rt	WB
Anti-Tau (paired181)	54961	54961-025	p	Hu, Ms, Rt	WB
Anti-Tau (pSer198)	54962	54962-025	p	Hu, Ms, Rt, Bo	WB
Anti-Tau (pSer199, 202)	54963	54963-025	p	Hu, Ms, Rt, Bo	WB
Anti-Tau (pSer202)	28017	28017-025	p	Hu, Ms, Rt	WB
Anti-Tau (paired202)	28018	28018-025	p	Hu, Ms, Rt	WB
Anti-Tau (pThr205)	54964	54964-025	p	Hu, Ms, Rt, Bo	WB
Anti-Tau (paired198, 199, 202, 205)	54965	54965-025	p	Hu, Ms, Rt, Bo	WB
Anti-Tau (pThr212)	54966	54966-025	p	Hu, Ms, Rt, Bo	WB
Anti-Tau (pSer214)	54967	54967-025	p	Hu, Ms, Rt, Bo	WB
Anti-Tau (pThr217)	54968	54968-025	p	Hu, Ms, Rt, Bo	WB
Anti-Tau (paired212, 214, 217)	54969	54969-025	p	Hu, Ms, Rt, Bo	WB
Anti-Tau (pSer262)	54973	54973-025	p	Hu, Ms, Rt, Bo	WB
Anti-Tau (paired262)	54974	54974-025	p	Hu, Ms, Rt, Bo	WB
Anti-Tau (pSer356)	54975	54975-025	p	Hu, Ms, Rt, Bo	WB
Anti-Tau (paired356)	54976	54976-025	p	Hu, Ms, Rt, Bo	WB
Anti-Tau (pSer396)	54977	54977-025	p	Hu, Ms, Rt, Bo	WB
Anti-Tau (pSer400)	54978	54978-025	p	Hu, Ms, Rt, Bo	WB
Anti-Tau (pSer404)	28023	28023-025	p	Hu, Ms, Rt	WB
Anti-Tau (paired404)	28024	28024-025	p	Hu, Ms, Rt	WB
Anti-Tau (paired396, 400, 404)	54979	54979-025	p	Hu, Ms, Rt, Bo	WB

\* Monoclonal (m) or Polyclonal (p)

## Alzheimer's Disease Related Antibodies (con't)

Product*	Cat#	Type**	Species Reactivity	Application
Anti-ADAM10 (CT)	54012	p	Hu	WB, IHC
Anti-AKT1 (paired308)	28104	p	Hu, Ms, Rt	WB
Anti-AKT1 / PKB (paired473)	28102	p	Hu, Ms, Rt	IP, WB, ELISA
Anti-β-Amyloid (1-40)	54295	p	Hu	IP
Anti-β-Amyloid (NT)	53224	p	Hu	IHC, WB, IP
Anti-β-Amyloid and BACE Sampler Set	54294	p	Hu, Ms, Rt	WB, IHC
Anti-APH1 (NT)	54636	p	Hu, Ms	WB
Anti-APP (AbNT)	54095	p	Hu, Ms, Rt	WB
Anti-APP (CT)	54096	p	Hu, Ms, Rt	WB
Anti-APP (paired668)	54980	p	Hu, Ms, Xe, Zf, Bo, Pg, Ck, Xe	WB
Anti-APP (pThr668)	54296	p	Hu, Ms, Xe, Zf, Bo, Pg, Ck, Xe	WB
Anti-BACE2 (CT)	54100	p	Hu	WB, IHC
Anti-BACE2 (NT)	54099	p	Hu, Ms, Rt	WB, IHC
Anti-BACE (CT)	54101	p	Hu, Ms	WB, IHC
Anti-Cadherin-E (monoclonal)	53280	m	Hu	IHC
Anti-Cadherin-E (polyclonal)	53281	p	Hu	IHC, WB, IF
Anti-Cadherin, pan	53279	p	Hu, Rt, Ms, Bo, Ck	IHC
Anti-CD11a, human	54751	m	Hu	FC, Block, IHC, WB
Anti-CD11a, human (Bio)	54752	m	Hu	FC, Block, IHC, WB
Anti-CD11a, mouse (2D7)	54747	m	Ms	FC, IHC
Anti-CD11a, mouse (Bio) (2D7)	54748	m	Ms	FC, IHC
Anti-CD11a, mouse (M17/4)	54749	m	Ms	FC, IHC, IP, Block
Anti-CD11a, mouse (Bio) (M17/4)	54750	m	Ms	FC, IHC, IP, Block
Anti-CD45, human	54817	m	Hu	FC, IHC, WB
Anti-CD45, human (Bio)	54818	m	Hu	FC, IHC, WB
Anti-CD45/LCA	53338	p	Hu	WB
Anti-CD45, mouse	54815	m	Ms	FC, IHC, IP, WB
Anti-CD45, mouse (Bio)	54816	m	Ms	FC, IHC, IP
Anti-GSK3-β	53521	p	Hu, Ms, Rt, Bo	WB
Anti-Interferon-γ (IFN-γ)	53560	m	Hu	ELISA
Anti-Interferon-γ (IFN-γ)	53589	m	Hu	WB
Anti-Nicastrin / APH-2 (CT)	54289	p	Hu, Ms, Rt	WB
Anti-Nicastrin / APH-2 (IN)	54290	p	Hu, Ms, Rt	WB
Anti-Notch-1	53721	m	Hu, Ms	IHC, FC
Anti-Notch-1 (CT)	53722	p	Hu, Ms, Rt	IHC
Anti-PEN2 (CT)	54287	p	Hu, Ms, Rt	WB
Anti-PEN2 (NT)	54288	p	Hu, Ms, Rt	WB
Anti-Presenilin-1 (CT)	54683	p	Hu, Ms, Rt	WB
Anti-Presenilin-1 (NT)	53792	p	Hu, Ms, Rt	IHC
Anti-Presenilin-1 (chicken polyclonal)	54297	p	Hu, Ms, Rt	IHC, IB, ELISA
Anti-Presenilin-2 (chicken polyclonal)	54298	p	Hu, Ms, Rt	IHC, IB, ELISA
Anti-Rho-Kinase (pThr396)	29648	p	Hu, Ms, Rt	WB
Anti-ROCK-1	53830	p	Hu, Ms, Rt	WB
Anti-ROCK-2	53831	p	Hu, Ms, Rt	WB
Anti-TNF-α, mouse	53916	m	Hu	WB
Anti-TNF-α, rat	53915	m	Hu	ELISA, WB

\* More Alzheimer's Disease related antibodies can be found online by typing the antibody name in the search box.

\*\* Monoclonal (m) or Polyclonal (p)

## Vital Stains for $\beta$ -Amyloids

AnaSpec provides the following colorimetric and fluorometric imaging reagents for  $\beta$ -amyloids.

### Congo Red and Its Derivatives

Product Name	Application	Abs (nm)	Em (nm)	MW	Cat# (size)
Congo Red *UltraPure Grade*	Congo red (CR) is a dye that has been in use for several decades for the detection of amyloid in tissue sections. It is used in the early diagnosis and classification of amyloid deposition and differentiation from other glomerular fibrillar deposits. CR binding results in a characteristic yellow-green birefringence under crossed polarization. Congo red fluorescence is simple to perform and is easier to evaluate than CR in bright light. When combined with immunohistochemistry, CR is visible under UV whereas CR is masked in bright light. <i>Ref: Tzankov, A. et al. Acta. Med. Austriaca 30, 29 (2003); Roterman, I. et al. Med. Sci. Monit. 7, 771 (2001); Khurana, R. et al. J. Biol. Chem. 276, 22715 (2001).</i>	497	N/A	696.7	83016 (1 g)
BSB, 1-[(trans,trans)-Bromo-2,5-bis-(3-hydroxy carbonyl-4-hydroxy) styryl]benzene]	BSB, a Congo Red derivative, is a cell-permeable fluorescent probe that specifically binds and labels intracellular $\beta$ -amyloid aggregates both <i>in vitro</i> ( $K_i = 400$ nM) and <i>in vivo</i> . It is used in live animals and also used as an antemortem diagnostic tool for animal models of Alzheimer's disease. The distinctive properties of BSB allow it to be used for quantitative monitoring of amyloid fibril formation assembled from the A $\beta$ peptide, $\beta$ -synuclein and tau. <i>Ref: Crystal, AS. et al. J. Neurochem. 86, 1359 (2003); Kung, MP. et al. J. Mol. Neurosci. 19, 7 (2002).</i>	340	520	481.3	88300 (5 mg)
Chrysamine G	Chrysamine G (CG) is a carboxylic acid analog of Congo Red, a classic histologic dye which stains amyloid. CG binds to the $\beta$ -amyloid protein of AD <i>in vitro</i> . This dye can cross the blood-brain barrier and partitions into the brain of normal mice. The binding of CG correlates with the number of senile plaques and neurofibrillary tangles. In addition, CG can be used to stain cerebrovascular amyloid in tissue sections. <i>Ref: Mathis, CA. et al. Curr. Pharm. Des. 10, 1469 (2004); Klunk, WE. et al. Life Sci. 63, 1807 (1998); Klunk, WE. et al. Neurobiol. Aging 16, 541 (1995).</i>	386	N/A	482.5	88303 (10 mg)
Half Chrysamine G	Half chrysamine G (hCG) has a lower affinity for A $\beta$ as compared to that of CG. Both CG and hCG are equally efficacious in reducing A $\beta$ -induced neuronal death at a concentration of 0.1-1 $\mu$ M, indicating that the mechanism of action for CG is not due to its chelating activity, but rather due to its anti-oxidant activity. <i>Ref: Ishii, K. et al. Neurosci. Lett. 333, 5 (2002).</i>	342	N/A	242.2	88305 (10 mg)

### Thioflavin and Its Derivatives

Product Name	Application	Abs (nm)	Em (nm)	MW	Cat# (size)
Thioflavin T *UltraPure Grade*	Thioflavin T (ThT), a benzothiazole dye is a classic amyloid stain for senile plaques containing $\beta$ -amyloid peptide in AD brain. It binds rapidly and specifically to the anti-parallel $\beta$ -sheet fibrils formed from synthetic $\beta$ -amyloid (1-40), but does not bind to monomer or oligomeric intermediates. The fibrillar $\beta$ -sheet-bound dye species undergoes a characteristic 120 nm red shift of its excitation spectrum that may be selectively excited at 450 nm, resulting in a fluorescence signal at 482 nm. ThT is a useful probe for the aggregated fibrillar state of $\beta$ -amyloid (1-40) fibrils as the amyloid-specific fluorescence reports only fibrillar species. The binding of ThT does not interfere with the aggregation of this peptide into amyloid fibrils. <i>Ref: Ban, T. et al. J. Biol. Chem. 278, 16462 (2003); Kung, MP. et al. Brain Res. 956, 202 (2002); De Ferrari, GV. et al. J. Biol. Chem. 276, 23282 (2001).</i>	412	482	318.9	88306 (1 g)
BTA-1 [2-(4'-methyl-amino)phenyl] benzothiazole]	BTA-1, an uncharged derivative of thioflavin-T, has a high affinity for A $\beta$ fibrils and shows very good brain entry and clearance. BTA-1 does not appear to bind significantly to common neuroreceptors or transporter sites. It exhibits high affinity for amyloid deposits [ $K_i = 11$ nM for A $\beta$ (1-40)]. BTA-1 crosses the blood brain barrier and displays up to 50-fold higher affinity than ThT. It selectively stains cerebral plaques and cerebrovascular amyloid deposits in the brains of PS1/APP transgenic mice. <i>Ref: Ishikawa, K. et al. J. Gen. Virol. 85, 1785 (2004); Klunk, WE. et al. J. Neurosci. 23, 2086 (2003).</i>	350	N/A	240.3	88301 (10 mg)
BTA-2 [2-(4'-dimethyl-amino)phenyl] 6-methyl-benzothiazole]	BTA-2 is an uncharged derivative of thioflavin-T that exhibits high affinity for amyloid deposits ( $K_i = 143$ nM for A $\beta$ (1-40)) and can cross the blood brain barrier. It displays up to 6-fold higher affinity than ThT and stains both plaques and neurofibrillary tangles in post mortem AD brain. <i>Ref: Mathis, CA. et al. Bioorg. Med. Chem. Lett. 12, 295 (2002); Kung, HF. et al. J. Am. Chem. Soc. 123, 12740 (2001).</i>	356	437	268.4	88302 (100 mg)