



Detection Set
Alzheimer's Disease β-Amyloid Protein Detection Set
Background:
 Accumulation of the amyloid-β peptide (Aβ) in the cerebral cortex is a critical event in the pathogenesis of Alzheimer's disease. The β-amyloid protein precursor (APP) is cleaved by one of two β-secretases (BACE and BACE2), producing a soluble derivative of the protein and a membrane anchored 99-amino acid carboxy-terminal fragment (C99). The C99 fragment serves as substrate for β-secretase to generate the 4 kDa amyloid-β peptide (Aβ), which is deposited in the Alzheimer's disease patients' brains. BACE was identified by several groups independently and designated β-site APP cleaving enzyme (BACE). BACE is a transmembrane aspartic protease and co-localizes with APP. BACE2 also cleaves APP at β-site and at a different site within Aβ. The BACE2 gene is located at chromosome 21q22.3, the so-called 'Down critical region', suggesting that BACE2 and Aβ may also contribute to the pathogenesis of Down syndrome.

Cat.No.: PSI-1812
Price: \$495
Kit Contents:
 APP Antibody (CT), Catalog No. 2136 (50µg)
 APP Antibody (Aβ-NT), Catalog No. 2133 (50µg)
 BACE Antibody (CT), Catalog No. 2253 (50µg)
 BACE2 Antibody (NT), Catalog No. 2247 (50µg)

	Cytoplasmic Protein Fraction		Membrane Protein Fraction		Nuclear Protein Fraction		Total Protein	
	Cat. No.	Price	Cat. No.	Price	Cat. No.	Price	Cat. No.	Price
Fetal Normal Brain Tissue Lysate	XBL10165	\$180/500µg	XBL10206	\$200/100µg	XBL10207	\$200/100µg	XBL10123	\$85/100µg
Adult Normal Brain Tissue Lysate	XBL10145	\$180/500µg	XBL10166	\$200/100µg	XBL10167	\$200/100µg	1303	\$85/100µg
Adult Normal Amygdala Tissue Lysate	XBL10223	\$365/500µg	XBL10237	\$400/100µg	XBL10238	\$400/100µg	XBL10131	\$85/100µg
Alzheimer's Disease Amygdala Tissue Lysate	XBL10271	\$295/500µg	XBL10272	\$300/100µg	XBL10273	\$300/100µg	XBL10274	\$85/100µg
Fetal Normal Brain Stem Tissue Lysate	XBL10224	\$365/500µg	XBL10239	\$400/100µg	XBL10240	\$400/100µg	XBL10132	\$85/100µg
Adult Normal Corpus Callosum Tissue Lysate	XBL10228	\$365/500µg	XBL10247	\$400/100µg	XBL10248	\$400/100µg	XBL10136	\$85/100µg
Alzheimer's Disease Corpus Callosum Tissue Lysate	XBL10275	\$295/500µg	XBL10276	\$300/100µg	XBL10277	\$300/100µg	XBL10278	\$85/100µg
Fetal Normal Frontal Lobe Tissue Lysate	XBL10151	\$180/500µg	XBL10178	\$200/100µg	XBL10179	\$200/100µg	XBL10109	\$85/100µg
Adult Normal Frontal Lobe Tissue Lysate	XBL10150	\$180/500µg	XBL10176	\$200/100µg	XBL10177	\$200/100µg	1366	\$85/100µg
Alzheimer's Disease Frontal Lobe Tissue Lysate	XBL10279	\$295/500µg	XBL10280	\$300/100µg	XBL10281	\$300/100µg	XBL10282	\$85/100µg
Adult Normal Hippocampus Tissue Lysate	XBL10152	\$180/500µg	XBL10180	\$200/100µg	XBL10181	\$200/100µg	XBL10110	\$85/100µg
Alzheimer's Disease Hippocampus Tissue Lysate	XBL10283	\$295/500µg	XBL10284	\$300/100µg	XBL10285	\$300/100µg	XBL10286	\$85/100µg
Fetal Normal Occipital Lobe Tissue Lysate	XBL10155	\$180/500µg	XBL10186	\$200/100µg	XBL10187	\$200/100µg	XBL10113	\$85/100µg
Adult Normal Occipital Lobe Tissue Lysate	XBL10154	\$180/500µg	XBL10184	\$200/100µg	XBL10185	\$200/100µg	1370	\$85/100µg
Alzheimer's Disease Occipital Lobe Tissue Lysate	XBL10287	\$295/500µg	XBL10288	\$300/100µg	XBL10289	\$300/100µg	XBL10290	\$85/100µg
Fetal Normal Parietal Lobe Tissue Lysate	XBL10158	\$180/500µg	XBL10192	\$200/100µg	XBL10193	\$200/100µg	XBL10116	\$85/100µg
Adult Normal Parietal Lobe Tissue Lysate	XBL10157	\$180/500µg	XBL10190	\$200/100µg	XBL10191	\$200/100µg	1372	\$85/100µg
Alzheimer's Disease Parietal Lobe Tissue Lysate	XBL10291	\$295/500µg	XBL10292	\$300/100µg	XBL10293	\$300/100µg	XBL10294	\$85/100µg
Adult Normal Pons Tissue Lysate	XBL10159	\$180/500µg	XBL10194	\$200/100µg	XBL10195	\$200/100µg	XBL10117	\$85/100µg
Alzheimer's Disease Pons Tissue Lysate	XBL10295	\$295/500µg	XBL10296	\$300/100µg	XBL10297	\$300/100µg	XBL10298	\$85/100µg
Adult Normal Postcentral Gyrus Tissue Lysate	XBL10160	\$180/500µg	XBL10196	\$200/100µg	XBL10197	\$200/100µg	XBL10118	\$85/100µg
Alzheimer's Disease Postcentral Gyrus Tissue Lysate	XBL10299	\$295/500µg	XBL10300	\$300/100µg	XBL10301	\$300/100µg	XBL10302	\$85/100µg
Adult Normal Precentral Gyrus Tissue Lysate	XBL10161	\$180/500µg	XBL10198	\$200/100µg	XBL10199	\$200/100µg	XBL10119	\$85/100µg
Alzheimer's Disease Precentral Gyrus Tissue Lysate	XBL10303	\$295/500µg	XBL10304	\$300/100µg	XBL10305	\$300/100µg	XBL10306	\$85/100µg
Fetal Normal Temporal Lobe Tissue Lysate	XBL10163	\$180/500µg	XBL10202	\$200/100µg	XBL10203	\$200/100µg	XBL10121	\$85/100µg
Adult Normal Temporal Lobe Tissue Lysate	XBL10162	\$180/500µg	XBL10200	\$200/100µg	XBL10201	\$200/100µg	1378	\$85/100µg
Alzheimer's Disease Temporal Lobe Tissue Lysate	XBL10311	\$295/500µg	XBL10312	\$300/100µg	XBL10313	\$300/100µg	XBL10314	\$85/100µg
Adult Normal Thalamus Tissue Lysate	XBL10164	\$180/500µg	XBL10204	\$200/100µg	XBL10205	\$200/100µg	1379	\$85/100µg
Alzheimer's Disease Thalamus Tissue Lysate	XBL10307	\$295/500µg	XBL10308	\$300/100µg	XBL10309	\$300/100µg	XBL10310	\$85/100µg

Custom Antibody Production: Choosing the Right Type for You

Deciding which type of custom antibody project is right for your research needs is the first step towards initiating a project. There are many factors that should be taken into account, including antibody quantity requirements, desired applications/uses, and cross-reactivity.

There are two main types of projects: monoclonal and polyclonal. Each project type has its own set of advantages and disadvantages. The first factor to determine is which species of host animal should be used for the production of the antibodies. The chart below can be used to highlight the benefits of each type of project, depending on your research needs.

Polyclonal

- PROS**
- Quick turnaround
 - Inexpensive
 - One antibody can work for a variety of applications
 - Requires less than 1mg immunogen
 - Multiple host species available, including non-mammalian hosts

- CONS**
- Quantity available limited by number of bleeds
 - Lot-to-lot variability in characterization
 - Difficulty in reproducing a specific antibody in new animals at later dates

Monoclonal

- PROS**
- Unlimited quantity and availability of antibody
 - Lot-to-lot consistency
 - High specificity of antibodies
 - Quick reproduction of antibody through ascites production
- CONS**
- Longer production time
 - Requires a minimum of 4 mgs immunogen
 - Higher cost of development
 - Antibodies less likely to work for multiple applications
 - More difficult if using peptide immunogens



For more information about ProSci's custom antibody development services, please contact abservices@prosci-inc.com or visit www.prosci-inc.com.