10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

# BACE Antibody (S498)

**Purified Rabbit Polyclonal Antibody (Pab)**
**Catalog # AP7774a**

## Specification

### BACE Antibody (S498) - Product Information

| | |
|---|---|
| Application | **WB,E** |
| Primary Accession | P56817 |
| Other Accession | P56819, P56818, Q2HJ40 |
| Reactivity | **Human, Mouse** |
| Predicted | **Bovine, Rat** |
| Host | **Rabbit** |
| Clonality | **Polyclonal** |
| Isotype | **Rabbit IgG** |
| Antigen Region | **476-501** |

### BACE Antibody (S498) - Additional Information

**Gene ID** 23621

**Other Names**
Beta-secretase 1, Aspartyl protease 2, ASP2, Asp 2, Beta-site amyloid precursor protein cleaving enzyme 1, Beta-site APP cleaving enzyme 1, Memapsin-2, Membrane-associated aspartic protease 2, BACE1, BACE, KIAA1149

**Target/Specificity**
This BACE antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 476-501 amino acids from human BACE.

**Dilution**
WB~~1:1000

**Format**
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.

**Storage**
Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions**
BACE Antibody (S498) is for research use only and not for use in diagnostic or therapeutic procedures.

### BACE Antibody (S498) - Protein Information

**Name** BACE1 (HGNC:933)

**Synonyms** BACE, KIAA1149

**Function** Responsible for the proteolytic processing of the amyloid precursor protein (APP). Cleaves at the N-terminus of the A-beta peptide sequence, between residues 671 and 672 of APP, leads to the generation and extracellular release of beta-cleaved soluble APP, and a corresponding cell-associated C-terminal fragment which is later released by gamma-secretase (PubMed:10656250, PubMed:10677483, PubMed:20354142). Cleaves CHL1 (By similarity).

**Cellular Location**
Cell membrane; Single-pass type I membrane protein Golgi apparatus, trans-Golgi network. Endoplasmic reticulum. Endosome. Cell surface. Cytoplasmic vesicle membrane; Single-pass type I membrane protein. Membrane raft {ECO:0000250|UniProtKB:P56818}. Lysosome. Late endosome. Early endosome. Recycling endosome. Cell projection, axon {ECO:0000250|UniProtKB:P56818}. Cell projection, dendrite {ECO:0000250|UniProtKB:P56818}. Note=Predominantly localized to the later Golgi/trans-Golgi network (TGN) and minimally detectable in the early Golgi compartments. A small portion is also found in the endoplasmic reticulum, endosomes and on the cell surface (PubMed:17425515, PubMed:11466313). Colocalization with APP in early endosomes is due to addition of bisecting N-acetylglucosamine wich blocks targeting to late endosomes and lysosomes (By similarity) Retrogradly transported from endosomal compartments to the trans-Golgi network in a phosphorylation- and GGA1- dependent manner (PubMed:15886016). {ECO:0000250|UniProtKB:P56818, ECO:0000269|PubMed:11466313, ECO:0000269|PubMed:15886016, ECO:0000269|PubMed:17425515}

**Tissue Location**
Expressed at high levels in the brain and pancreas. In the brain, expression is highest in the substantia nigra, locus coruleus and medulla oblongata.

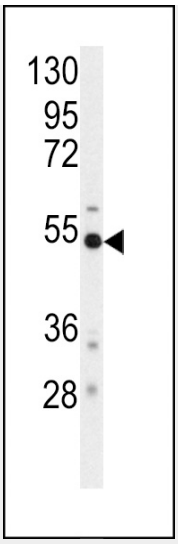
## BACE Antibody (S498) - Protocols

Provided below are standard protocols that you may find useful for product applications.

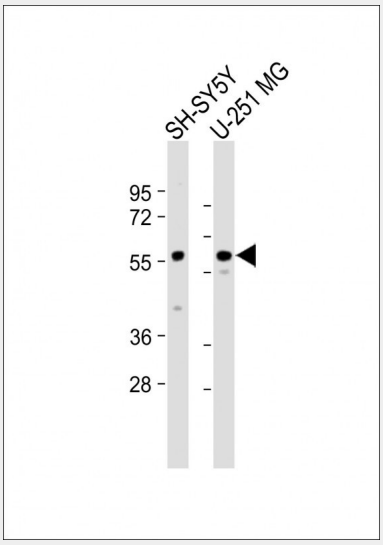
- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

## BACE Antibody (S498) - Images

10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999




Western blot analysis of anti-BACE Antibody (S498) (Cat.#AP7774a) in mouse cerebellum tissue lysates (35ug/lane). BACE (arrow) was detected using the purified Pab.




All lanes : Anti-Phospho-BACE(S498) Antibody, ctrl at 1:1000 dilution Lane 1: SH-SY5Y whole cell lysate Lane 2: U-251 MG whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 56 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

**BACE Antibody (S498) - Background**

Cerebral deposition of amyloid beta peptide is an early and critical feature of Alzheimer's disease. Amyloid beta peptide is generated by proteolytic cleavage of amyloid precursor protein (APP) by two proteases, one of which is BACE. This protein, a member of the peptidase A1 protein family, is a type I integral membrane glycoprotein and aspartic protease that is found mainly in the Golgi.

**BACE Antibody (S498) - References**

Xie, J., et al., J. Biol. Chem. 280(14):13824-13832 (2005).
He, X., et al., J. Biol. Chem. 280(12):11696-11703 (2005).
Huang, X.P., et al., J. Biol. Chem. 279(36):37886-37894 (2004).
Chiocco, M.J., et al., J. Biol. Chem. 279(50):52535-52542 (2004).
Yang, H.C., et al., J. Neurochem. 91(6):1249-1259 (2004).