

DESCRIPTION

Species Reactivity	Human/Mouse
Specificity	Detects human and mouse BACE-1 Ectodomain in direct ELISAs and Western blots. In direct ELISAs, less than 2% cross-reactivity with recombinant human (rh) ADAM8, recombinant mouse ADAM9, rhADAM15, and rhTACE is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant human BACE-1 Ectodomain Thr22-Tyr460 Accession # P56817
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS.

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

	Recommended Concentration	Sample
Western Blot	0.1 µg/mL	Recombinant Human BACE-1 (Catalog # 931-AS) Recombinant Mouse BACE-1 (Catalog # 2976-AS)
Immunoprecipitation	25 µg/mL	Conditioned cell culture medium spiked with Recombinant Human BACE-1 (Catalog # 931-AS) or Recombinant Mouse BACE-1 (Catalog # 2976-AS), see our available Western blot detection antibodies

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.2 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

BACE-1 is an aspartic protease and an integral membrane protein (1 - 5). BACE-1 is the peptidase predominantly responsible for cleavage of the amyloid precursor protein β site in the brain to generate the amyloid β peptide. Because the amyloid β peptide is a major component of amyloid plaques, BACE-1 has been implicated in the onset and/or progression of Alzheimer's disease. BACE-1 is expressed in a variety of human tissues. It is likely that this peptidase has functions in addition to its hydrolysis of the amyloid precursor protein. The peptidase activity of BACE-1 is optimal under mildly acidic conditions (pH 3.5 - 5.5), consistent with its proposed function in an acidic intracellular compartment.

References:

1. Ermolieff, J. *et al.* (2000) *Biochemistry* **39**:12450.
2. Lin, X. *et al.* (2000) *Proc. Natl. Acad. Sci. USA* **97**:1456.
3. Sinha, S. *et al.* (1999) *Nature* **402**:537.
4. Vassar, R. *et al.* (1999) *Science* **286**:735.
5. Yan, R. *et al.* (1999) *Nature* **402**:533.