

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse BACE-2 Ectodomain in direct ELISAs and Western blots. In direct ELISAs and Western blots, approximately 15% cross-reactivity with recombinant mouse BACE and recombinant human BACE-2 is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant mouse BACE-2 Phe29-Pro462 (Tyr357His) Accession # Q9JL18
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 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 Mouse BACE-2 (Catalog # 2977-AS)
Immunoprecipitation	25 µg/mL	Conditioned cell culture medium spiked with Recombinant Mouse BACE-2 (Catalog # 2977-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-2 is an aspartic protease that shares sequence similarity with BACE-1, the major β -secretase for generation of A β peptide in neurons (1). However, BACE-2 differs from BACE-1 in several aspects including pro-enzyme activation, substrate binding sites, transcriptional regulation, and function in A β peptide production (2-4). The domain structure of mouse BACE-2 consists of a signal peptide (aa 1-19), pro (aa 20-62) and a mature chain (aa 63-514) that consists of a transmembrane domain and a cytoplasmic tail. The C-terminal region (aa 463-514) was replaced by a His tag in the recombinant mouse BACE-2 that also contained a His residue at the position of Tyr357. The purified recombinant mouse BACE-2 started at Ala63, the same residue shown at the N-terminus of the human active BACE-2 (2).

References:

1. Cai, H. *et al.* (2001) *Nature Neurosci.* **4**:233.
2. Hussain, I. *et al.* (2001) *J. Biol. Chem.* **276**:23322.
3. Ostermann, N. *et al.* (2006) *J. Mol. Biol.* **355**:249.
4. Sun, X. *et al.* (2005) *FASEB J.* **19**:739.