Human/Mouse BACE-1 Ectodomain Antibody

Monoclonal Mouse IgG_1 Clone # 137626

Catalog Number: MAB9311

DESCRIPTION

Species Reactivity	Human/Mouse
Specificity	Detects human and mouse BACE-1 Ectodomain in direct ELISAs. In direct ELISAs, no cross-reactivity with recombinant human (rh) BACE-2, recombinant mouse BACE-2, rhADAM8, rhADAM9, rhADAM10, rhADAM15, or rhTACE is observed.
Source	Monoclonal Mouse IgG_1 Clone # 137626
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Mouse myeloma cell line NS0-derived recombinant human BACE-1 Thr22-Tyr460 Accession # P56817
Endotoxin Level	<0.10 EU per 1 µg of the antibody by the LAL method.
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.

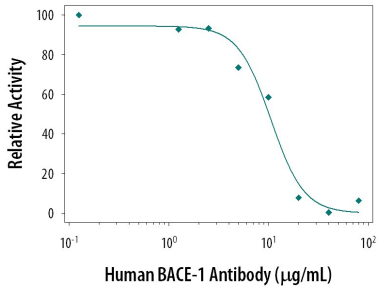
APPLICATIONS

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
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
Neutralization		Measured by its ability to neutralize Recombinant Human BACE-1 (10 µg/mL, Catalog # 931-AS) or Recombinant Mouse BACE-1 (10 µg/mL, Catalog # 2976-AS) cleavage of the fluorogenic peptide substrate Mca-SEVNLDAEFRK (Dnp)RR-NH_2 (10 µM, Catalog # ES004). The Neutralization Dose (ND_{50}) is typically 10 µg/mL.

DATA

Neutralization



Neutralization of BACE-1 Activity by Human/Mouse BACE-1 Antibody. The cleavage of Mca-SEVNLDAEFRK(Dnp)RR-NH_2 (10 µM, Catalog # ES004) by Recombinant Human BACE-1 (10 µg/mL, Catalog # 931-AS) or Recombinant Mouse BACE-1 (10 µg/mL, Catalog # 2976-AS) is measured after preincubation with increasing concentrations of Mouse Anti-Human/Mouse BACE-1 Ectodomain Monoclonal Antibody (Catalog # MAB9311). The ND_{50} is typically 10 µg/mL.a

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.5 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.** ● 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.

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Monoclonal Mouse IgG_1 Clone # 137626

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BACKGROUND

BACE-1 (beta-site APP cleaving enzyme-1) is an aspartic protease and an integral membrane protein (1, 2). It is the major β secretase, and together with the γ secretase, is responsible for generating the amyloid β peptide (Aβ) from the amyloid precursor protein (APP) (3, 4). Because Aβ is a major component of amyloid plaques, BACE-1 has been implicated in the onset and/or progression of Alzheimer's disease. High levels of BACE-1 activity are sufficient to elicit neurodegeneration and neurological decline in vivo, indicating that inhibiting BACE-1 may block not only Aβ-dependent but also Aβ-independent pathogenic mechanisms (5). In addition to APP, BACE-1 also cleaves APP-like proteins 1 and 2, the cell adhesion protein P-selectin glycoprotein ligand-1 and β-galactoside α2,6-sialyltransferase, implying that BACE-1 may have additional functions involving the ectodomain shedding of membrane proteins (6 - 8).

References:

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