BACE2 Recombinant Protein

PRODUCT OVERVIEW

Product Name	BACE2, Recombinant Protein
Full Product Name	BACE2 Protein, Mouse, Recombinant (His Tag)
Product Gene Name	BACE2 recombinant protein
Product Synonym Names	Mouse BACE2/Beta secretase 2 Protein (His Tag); beta-site APP-cleaving enzyme 2; 1110059C24Rik Protein, Mouse; AEPLC Protein, Mouse; AI850424 Protein, Mouse; ALP56 Protein, Mouse; ARP1 Protein, Mouse; ASP21 Protein, Mouse; BAE2 Protein, Mouse; CDA13 Protein, Mouse; CEAP1 Protein, Mouse; DRAP Protein, Mouse
Sequence	Met1-Pro46 2
Host	HEK293 Cells
Form/Format	Lyophilized from sterile PBS, pH7.4 Normally 5%-8% trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization.
Purity/Purification	>95 % as determined by SDS-PAGE
Preparation and Storage	Samples are stable for up to twelve months from date of receipt at -20 degree C to -80 degree C. Store it under sterile conditions at -20 degree C to -80 degree C. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles. Shipping: They are shipped out with blue ice pack
Matching Pairs	Antibody: BACE2 (MBS8112265) Immunogen: BACE2 (MBS8118867)
Matching Pairs	Antibody: BACE2 (MBS8112266) Immunogen: BACE2 (MBS8118867)
Molecular Weight	55,800 Da
Sequence Positions	454aa
3D Structure	ModBase 3D Structure for Q9JL18
Species	Mouse
Tag	C-His
Endotoxin	<1.0EU per ug of the protein as determined by the LAL method
Predicted N Terminal	Ala20
Protein Construction	|A DNA sequence encoding the mouse BACE2 (Q9JL18) (Met1-Pro462) was expressed with a C-terminal polyhistidine tag
Activity	Measured by its ability to cleave a fluorogenic peptide substrate Mca-KPLGL-Dpa-AR-NH2. The specific activity is >50 pmoles/min/ug.
Related Product Information for BACE2 recombinant protein	BACE2, also known as beta secretase 2, belongs to the peptidase A1 family. It is a protease known to be an important enzyme involved in the cellular pathways. BACE2 has been shown to interact with GGA1 and GGA2. It is the major beta-secretase in vivo. BACE2 is located on chromosome 21 and may play a role in alzheimer's disease pathogenesis in down syndrome(DS). Overexpression of BACE2 by lentivirus markedly reduced amyloid beta protein production in primary neurons. Despite an extra copy of the BACE2 gene in DS and the increase of its transcription, BACE2 protein levels are unchanged.

Product References and Citations for BACE2 recombinant protein	Hussain I, et al. (2001) Prodomain processing of Asp1 (BACE2) is autocatalytic. J Biol Chem. 276(26):23322-8.Solans A, et al. (2000) A new aspartyl protease on 21q22.3, BACE2, is highly similar to Alzheimer's amyloid precursor protein beta-secretase. Cytogenet Cell Genet. 89(3-4): 177-84.Hussain I, et al. (2001) ASP1 (BACE2) cleaves the amyloid precursor protein at the beta-secretase site. Mol Cell Neurosci. 16(5):609-19.
Other Notes	Small volumes of BACE2 recombinant protein vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for BACE2 purchase	MBS8118867 is a recombinant protein targeting BACE2. Also known as BACE2 Protein, Mouse, Recombinant (His Tag). Host: HEK293 Cells.



Testing Data of BACE2 recombinant protein

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for BACE2. It may not necessarily be applicable to this product.

NCBI GI #	244798416
NCBI GeneID	56175
NCBI Accession #	NP_062390.3
UniProt Primary Accession #	Q9JL18
UniProt Secondary Accession #	Q3TNS7; Q8C5E9; Q8C793; Q9R1P7
UniProt Related Accession #	Q9JL18
GenBank Nucleotide #	NM_019517.4
NCBI Official Full Name	beta-secretase 2
NCBI Official Synonym Full Names	beta-site APP-cleaving enzyme 2
NCBI Official Symbol	Bace2
NCBI Official Synonym Symbols	ARP1; BAE2; DRAP; AEPLC; ALP56; ASP21; CDA13; CEAP1; AI850424; 1110059C24Rik
UniProt Protein Name	Beta-secretase 2
UniProt Synonym Protein Names	Aspartyl protease 1; ASP1; Asp 1; Beta-site amyloid precursor protein cleaving enzyme 2; Beta-site APP cleaving enzyme 2; Memapsin-1; Membrane-associated aspartic protease 1; Theta-secretase
Protein Family	Beta-secretase
UniProt Gene Name	Bace2
UniProt Synonym Gene Names	ASP1; Asp 1; Beta-site APP cleaving enzyme 2
UniProt Entry Name	BACE2_MOUSE
NCBI Protein Information	beta-secretase 2; ASP1; asp 1; memapsin-1; theta-secretase; aspartyl protease 1; beta-site APP cleaving enzyme 2; membrane-associated aspartic protease 1; beta-site amyloid precursor protein cleaving enzyme 2

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