Active Recombinant Human BACE2, His-tagged

Cat. No. BACE2-579TH **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant soluble BACE2, cloned from human cDNA, secreted as zymogen from insect cells, purified using a C-terminal His-tag, and cleaved to the mature active form.
Species	Human
Source	Insect Cells
Description	This gene encodes an integral membrane glycoprotein that functions as an aspartic protease. The encoded protein cleaves amyloid precursor protein into amyloid beta peptide, which is a critical step in the etiology of Alzheimer"s disease and Down syndrome. The protein precursor is further processed into an active mature peptide. Alternative splicing results in multiple transcript variants.
Form	Liquid. In 50mM TRIS-HCl, pH 7.5, containing 100mM sodium chloride and 20% glycerol.
Bio-activity	>30 U/μg enzyme.
Molecular Mass	~45kDa (calculated); ~48kDa (doublet by SDS-PAGE)
AA Sequence	aa Ala21-Pro466.
Purity	≥80% (SDS-PAGE)

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Applications	Study enzyme kinetics, cleave target substrates, and screen for BACE2 inhibitors or BACE1 inhibitor selectivity.
Stability	BACE2 is stable after 5 freeze-thaws at 0.3-0.4 μg/μl. freeze-thaw stability of more dilute preparations has not been tested and could lead to loss of activity.
Storage	-80°C

GENE INFORMATION

Gene Name	BACE2 beta-site APP-cleaving enzyme 2 [Homo sapiens (human)]
Official Symbol	BACE2
Synonyms	BACE2; ASP1; BAE2; DRAP; AEPLC; ALP56; ASP21; CDA13; CEAP1; beta-site APP-cleaving enzyme 2; beta-secretase 2; memapsin-1; theta-secretase; aspartyl protease 1; 56 kDa aspartic-like protease; Down syndrome region aspartic protease; transmembrane aspartic proteinase Asp1; membrane-associated aspartic protease 1; beta-site amyloid beta A4 precursor protein-cleaving enzyme 2; EC 3.4.23.45
Gene ID	25825
mRNA Refseq	NM_012105
Protein Refseq	NP_036237
MIM	605668
UniProt ID	Q9Y5Z0
Chromosome	21q22.3

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Location	
Pathway	Alzheimer''s disease
Function	aspartic-type endopeptidase activity

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