

Datasheet for ABIN2180626
BACE1 Protein (AA 22-457)[Go to Product page](#)

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Overview

Quantity:	100 µg
Target:	BACE1
Protein Characteristics:	AA 22-457
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant

Product Details

Sequence:	AA 22-457
Characteristics:	This protein carries no "tag". The protein has a calculated MW of 49 kDa. The protein migrates as 60-70 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.
Purity:	>98 % as determined by SDS-PAGE.
Sterility:	0.22 µm filtered
Endotoxin Level:	Less than 1.0 EU per µg by the LAL method.

Target Details

Target:	BACE1
Alternative Name:	BACE-1 (BACE1 Products)
Background:	Beta-secretase 1 (BACE1) is also known as beta-site APP cleaving enzyme 1 (beta-site amyloid precursor protein cleaving enzyme 1), memapsin-2 (membrane-associated aspartic protease 2), and aspartyl protease 2 (ASP2), β -Secretase, and is a member of the peptidase A1 protein

Target Details

family, BACE1 is a type I integral membrane glycoprotein and aspartic protease that is found mainly in the Golgi. BACE1 is an aspartic-acid protease important in the pathogenesis of Alzheimer's disease, and in the formation of myelin sheaths in peripheral nerve cells. The transmembrane protein contains two active site aspartate residues in its extracellular protein domain and may function as a dimer. This protease is responsible for the proteolytic processing of the amyloid precursor protein (APP). Generation of the 40 or 42 amino acid-long amyloid- β peptides that aggregate in the brain of Alzheimer's patients requires two sequential cleavages of the APP. Extracellular cleavage of APP by BACE creates a soluble extracellular fragment and a cell membrane-bound fragment referred to as C99. The elevation of BACE1 levels can be induced by amyloid plaques surrounding neurons at early stages of pathology before neuron death occurs, and may drive a positive-feedback loop in AD.

Molecular Weight: 49.0 kDa

NCBI Accession: [NP_036236](#)

Application Details

Restrictions: For Research Use only

Handling

Format: Lyophilized

Buffer: 50 mM Tris, pH 8.0

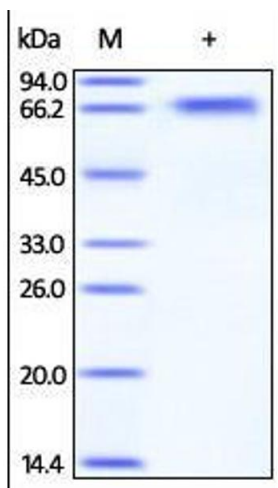
Handling Advice: Please avoid repeated freeze-thaw cycles.

Storage: -20 °C

Storage Comment: No activity loss was observed after storage at: In lyophilized state for 1 year (4 °C-8 °C), After reconstitution under sterile conditions for 1 month (4 °C-8 °C) or 3 months (-20 °C to -70 °C).

Publications

Product cited in: Yu, Huang, Chen, Liu, Wu, Pu, Wang, Kang, Zhou: "Characterization of a novel anti-human lymphocyte activation gene 3 (LAG-3) antibody for cancer immunotherapy." in: **mAbs**, Vol. 11, Issue 6, pp. 1139-1148, (2019) ([PubMed](#)).



SDS-PAGE

Image 1. Human BACE-1, Tag Free on SDS-PAGE under reducing (R) condition. The gel was stained overnight with Coomassie Blue. The purity of the protein is greater than 98%.