Datasheet for ABIN7320444

BACE1 Protein (His tag)

Go to Product page

1 Image

Overview

Quantity:	100 µg
Target:	BACE1
Origin:	Mouse
Source:	HEK-293 Cells
Protein Type:	Recombinant
Biological Activity:	Active
Purification tag / Conjugate:	This BACE1 protein is labelled with His tag.

Product Details

Purpose:	Recombinant Mouse BACE1/ASP2 Protein (His Tag)(Active)
Sequence:	Met 1-Thr 457
Characteristics:	A DNA sequence encoding the extracellular domain (Met 1-Thr 457) of mouse BACE1 (NM_011792.5) precursor was expressed with a C-terminal polyhistidine tag.
Purity:	> 97 % as determined by SDS-PAGE
Endotoxin Level:	< 1.0 EU per µg of the protein as determined by the LAL method.
Biological Activity Comment:	Measured by its ability to cleave a fluorescent peptide substrate Mca-Ser-Glu-Val-Asn-Leu-Asp-Ala-Glu-Phe-Arg-Lys(Dpn)-Arg-Arg-NH2 (Catalog# ES004, R&D Systems). Cleavage of ES004 can be measured using excitation and emission wavelengths of 320 and 405 nm, respectively. The specific activity is >2 pmoles/min/µg.

Target Details

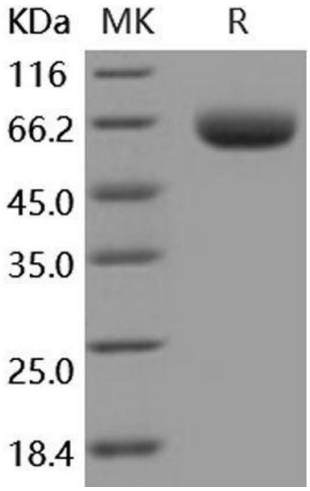
Target:	BACE1
Alternative Name:	BACE1 (BACE1 Products)
Background:	Background: Beta-site APP-cleaving enzyme 1 (BACE1) is an aspartic-acid protease important in the formation of myelin sheaths in peripheral nerve cells. In the brain, This protein is expressed highly in the substantia nigra, locus coruleus and medulla oblongata. Strong BACE1 expression has also been described in pancreatic tissue. BACE1 has a pivotal role in the pathogenesis of Alzheimer's disease. In Alzheimer's disease patients, BACE1 levels were elevated although mRNA levels were not changed. It has been found that BACE1 gene expression is controlled by a TATA-less promoter. The translational repression as a new mechanism controlling its expression. And the low concentrations of Ca(2+) (microM range) significantly increased the proteolytic activity of BACE1. Furthermore, BACE1 protein is ubiquitinated, and the degradation of BACE1 proteins and amyloid precursor protein processing are regulated by the ubiquitin-proteasome pathway. It has also been identified as the rate limiting enzyme for amyloid-beta-peptide (Abeta) production. Synonym: C76936
Molecular Weight:	49.8 kDa
NCBI Accession:	NM_011792

Application Details

Restrictions:	For Research Use only

Handling

Format:	Lyophilized
Reconstitution:	Please refer to the printed manual for detailed information.
Buffer:	Lyophilized from sterile PBS, pH 7.4
Storage:	4 °C,-20 °C,-80 °C
Storage Comment:	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.



Western Blotting
Image 1.

