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# 37-1005: Human BACE1 / ASP2 Recombinant Protein (Fc Tag)(Discontinued)

Reactivity : Human

Alternative Name : ASP2 Protein, BACE Protein, HSPC104 Protein,

## Description

## Source : HEK293 Cells

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.

#### **Product Info**

Amount :	Human BACE1 / ASP2 Recombinant Protein (Fc Tag)(Discontinued) / 100 $\mu$ g
Purification :	> 90 % as determined by SDS-PAGE
Content :	Formulation Lyophilized from sterile PBS, pH 7.4 Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization.
Storage condition :	Store it under sterile conditions at -20°C to -80°C. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.
Amino Acid :	Met1-Thr457

#### **Application Note**

Measured by its ability to cleave a fluorogenic peptide substrate, Mca-SEVNLDAEFRK(Dpn)RR-NH2 . The specific activity is >0.5 pmoles/min/ $\mu$ g. Endotoxin :< 1.0 EU per  $\mu$ g of the protein as determined by the LAL method

KDa-	м		
116	-	-	-
66.2	-		1
45.0	-		
35.0	-	-	•
25.0	-		
18.4	-		
14.4	-		

Fig 1: Human BACE1 / ASP2 Recombinant Protein (Fc Tag)

For Research Use Only. Not for use in diagnostic/therapeutics procedures.