

Human CellExp™ BACE1, human recombinant (Native)

CATALOG #: 7398-10 10 µg
7398-50 50 µg

ALTERNATE NAMES: BACE1, ASP2, BACE, FLJ90568, HSPC104, KIAA1149, Beta-secretase-1, memapsin-2, aspartyl-protease-2, beta-site-APP-cleaving-enzyme-1

SOURCE: HEK 293 cells (Thr 22 - Thr 457)

PURITY: ≥ 98% by SDS-PAGE gel

MOL. WEIGHT: This protein contains no “tags” and has a calculated MW of 49 kDa. The predicted N-terminus is Thr22. DTT-reduced protein migrates as 50-65 kDa polypeptide in SDS-PAGE due to glycosylation.

ENDOTOXIN LEVEL: <1 EU/µg by LAL method

FORM: Lyophilized

FORMULATION: Lyophilized from 0.22 µm filtered solution in PBS, pH7.4. Generally 5-8% Mannitol or trehalose is added as a protectant before lyophilization.

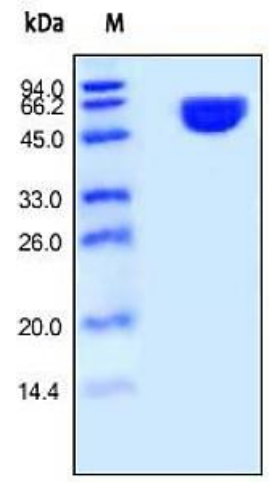
STORAGE CONDITIONS: Store at -20°C. After reconstitution, aliquot and store at -20°C and use within 3 months. Avoid repeated freezing and thawing cycles.

RECONSTITUTION: Centrifuge the vial prior to opening. Reconstitute in sterile PBS, pH 7.4 to a concentration of 50 µg/ml. Do not vortex. This solution can be stored at 2-8°C for up to 1 month. For extended storage, it is recommended to store at -20°C.

DESCRIPTION: Beta-secretase 1 (BACE1), 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 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

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.

BIOLOGICAL ACTIVITY: Measured by its ability to cleave a fluorescent peptide substrate Mca-Ser-Glu-Val-Asn-Leu-Asp-Ala-Glu-Phe-Arg-Lys(Dnp)-Arg-Arg-NH₂. Cleavage of the substrate can be measured using excitation and emission wavelengths of 320 and 405 nm, respectively. The specific activity is > 7.5 pmoles /min /µg.



Human recombinant BACE1

RELATED PRODUCTS:

- Active Recombinant Human beta-Secretase 1 - BACE-1 (Cat. No. 7609-5, -50, -1000)
- BACE Antibody (CT) (Cat. No. 5051-100)
- BACE2 Antibody (CT) (Cat. No. 5047-100)
- BACE2 Antibody (NT) (Cat. No. 5046-100)
- Secretase-beta, human recombinant (Cat. No. 7604-20, -100, -1000)

