Mouse BACE2 / Beta secretase 2 Protein (His Tag)

Catalog Number: **51031-M08H**

General Information

Gene Name Synonym:

1110059C24Rik; AEPLC; AI850424; ALP56; ARP1; ASP21; BAE2; CDA13; CEAP1; DRAP

Protein Construction:

A DNA sequence encoding the mouse BACE2 (Q9JL18) (Met1-Pro462) was expressed with a C-terminal polyhistidine tag.

Source: Mouse

Expression Host: HEK293 Cells

QC Testing

Purity: > 95 % as determined by SDS-PAGE

Bio Activity:

Measured by its ability to cleave a fluorogenic peptide substrate Mca-KPLGL-Dpa-AR-NH2 (Catalog # ES010). The specific activity is >50 pmoles/min/μg.

Endotoxin:

< 1.0 EU per μg of the protein as determined by the LAL method

Stability:

Samples are stable for up to twelve months from date of receipt at -70 ℃

Predicted N terminal: Ala 20

Molecular Mass:

The recombinant mouse BACE2 comprises 454 amino acids and has a predicted molecular mass of 49.2 kDa. The apparent molecular mass of the protein is approximately 55 kDa in SDS-PAGE under reducing conditions due to glycosylation.

Formulation:

Lyophilized from sterile PBS, pH 7.4

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

Usage Guide

Storage:

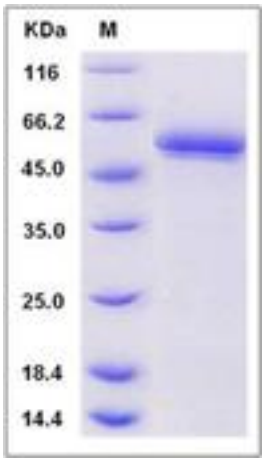
Store it under sterile conditions at -20℃ to -80℃ upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

BACE2, also known as beta secretase 2, belongs to the peptidase A1 family. It is a protease known to be an important enzyme involved in the cellular pathways. BACE2 has been shown to interact with GGA1 and GGA2. It is the major β-secretase in vivo. BACE2 is located on chromosome 21 and may play a role in alzheimer's disease pathogenesis in down syndrome(DS). Overexpression of BACE2 by lentivirus markedly reduced amyloid β protein production in primary neurons. Despite an extra copy of the BACE2 gene in DS and the increase of its transcription, BACE2 protein levels are unchanged.

References

1.Hussain I, *et al.* (2001) Prodomain processing of Asp1 (BACE2) is autocatalytic. J Biol Chem. 276(26):23322-8. 2.Solans A, *et al.* (2000) A new aspartyl protease on 21q22.3, BACE2, is highly similar to Alzheimer's amyloid precursor protein beta-secretase. Cytogenet Cell Genet. 89(3-4): 177-84. 3.Hussain I, *et al.* (2001) ASP1 (BACE2) cleaves the amyloid precursor protein at the beta-secretase site. Mol Cell Neurosci. 16(5):609-19.