

# Mouse BACE-1 Protein

Cat. No. BAE-MM101

## Description

|                         |   |
|-------------------------|---|
| <b>Source</b>           | Recombinant Mouse BACE-1 Protein is expressed from HEK293 with His tag at the C-Terminus.<br>It contains Thr22-Thr457.              |
| <b>Accession</b>        | P56818  |
| <b>Molecular Weight</b> | The protein has a predicted MW of 49.49 kDa. Due to glycosylation, the protein migrates to 60-70 kDa based on Tris-Bis PAGE result. |
| <b>Endotoxin</b>        | Less than 1EU per $\mu\text{g}$ by the LAL method.  |
| <b>Purity</b>           | > 95% as determined by Tris-Bis PAGE<br>> 95% as determined by HPLC   |

## Formulation and Storage

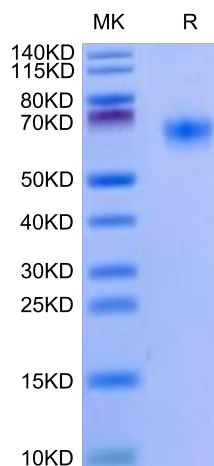
|                       |  |
|-----------------------|--|
| <b>Formulation</b>    | Lyophilized from 0.22 $\mu\text{m}$ filtered solution in PBS (pH 7.4). Normally 8% trehalose is added as protectant before lyophilization.   |
| <b>Reconstitution</b> | Centrifuge the tube before opening. Reconstituting to a concentration more than 100 $\mu\text{g}/\text{ml}$ is recommended. Dissolve the lyophilized protein in distilled water.   |
| <b>Storage</b>        | -20 to -80°C for 12 months as supplied from date of receipt. -80°C for 3-6 months after reconstitution. 2-8°C for 2-7 days after reconstitution. Recommend to aliquot the protein into smaller quantities for optimal storage. Please minimize freeze-thaw cycles. |

## Background

The beta-site amyloid precursor protein cleaving enzyme-1 (BACE-1) initiates the generation of amyloid- $\beta$  ( $\text{A}\beta$ ), and the amyloid cascade leading to amyloid plaque deposition, neurodegeneration, and dementia in Alzheimer's disease (AD). Clinical failures of anti- $\text{A}\beta$  therapies in dementia stages suggest that treatment has to start in the early, asymptomatic disease states.

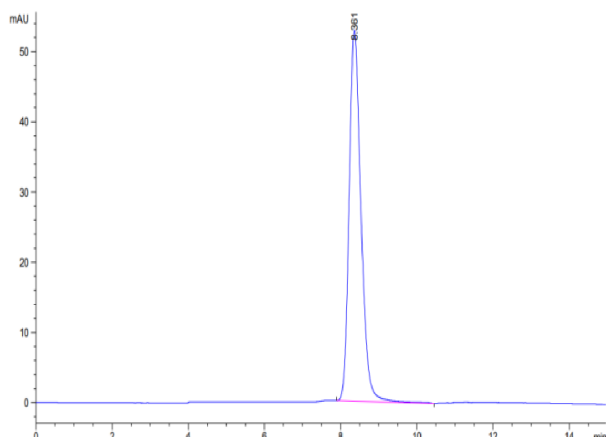
## Assay Data

### Tris-Bis PAGE



Mouse BACE-1 on Tris-Bis PAGE under reduced condition. The purity is greater than 95%.

### SEC-HPLC



The purity of Mouse BACE-1 is greater than 95% as determined by SEC-HPLC.

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#### Bioactivity Data

Measured by its ability to cleave a fluorogenic peptide substrate, Mca-SEVNLDAEFRK(Dpn)RR-NH<sub>2</sub>. The specific activity is > 3 pmol/min/μg.