

# Human BACE-1 Protein

Cat. No. BAE-HM201



## Description

|                         |   |
|-------------------------|---|
| <b>Source</b>           | Recombinant Human BACE-1 Protein is expressed from HEK293 with hFc tag at the C-Terminus.<br>It contains Thr22-Thr457.  |
| <b>Accession</b>        | NP_036236.1   |
| <b>Molecular Weight</b> | The protein has a predicted MW of 75.2 kDa (pro-form) and 72.6 kDa (mature-form). Due to glycosylation, the protein migrates to 85-100 kDa based on Bis-Tris PAGE result. |
| <b>Endotoxin</b>        | Less than 1EU per ug by the LAL method.   |
| <b>Purity</b>           | > 95% as determined by Bis-Tris PAGE<br>> 95% as determined by HPLC   |

## Formulation and Storage

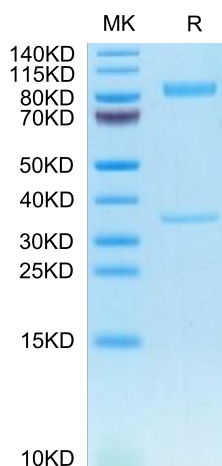
|                    |  |
|--------------------|--|
| <b>Formulation</b> | Supplied as 0.22µm filtered solution in PBS (pH 7.4).  |
| <b>Storage</b>     | Valid for 12 months from date of receipt when stored at -80°C. Recommend to aliquot the protein into smaller quantities for optimal storage. Please minimize freeze-thaw cycles. |

## Background

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

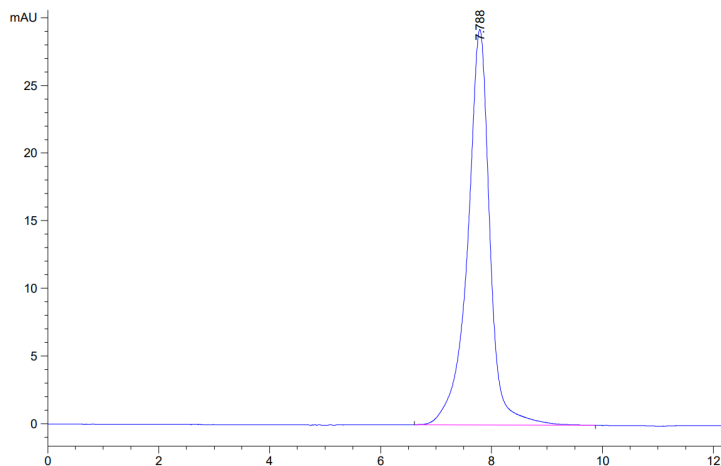
## Assay Data

### Bis-Tris PAGE



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

### SEC-HPLC



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

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### Assay Data

#### 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.