

## Active Recombinant Mouse BACE2 Protein, His-Tagged

Cat. No. BACE2-33M    Lot. No. (See product label)

### SPECIFICATION

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|-------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Product Overview</b> | Recombinant mouse BACE2 (Q9JL18) (Met1-Pro462) was expressed with a C-terminal polyhistidine tag.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Species</b>          | Mouse                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Source</b>           | HEK293                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>ProteinLength</b>    | 1-462 a.a.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Description</b>      | 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 $\beta$ -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 $\beta$ 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. |
| <b>Form</b>             | Sterile PBS, pH 7.4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Bio-activity</b>     | Measured by its ability to cleave a fluorogenic peptide substrate Mca-KPLGL-Dpa-AR-NH <sub>2</sub> .<br>The specific activity is >50 pmoles/min/ $\mu$ g.                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Molecular Mass</b>   | The recombinant mouse BACE2 comprises 454 amino acids and has a predicted                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |

 Tel: 1-631-559-9269    1-516-512-3133

 Email: [info@creative-biomart.com](mailto:info@creative-biomart.com)     Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

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.

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

**Purity** > 95 % as determined by SDS-PAGE

**Storage** Store it under sterile conditions at -20 centigrade to -80 centigrade. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.

## GENE INFORMATION

**Gene Name** [Bace2 beta-site APP-cleaving enzyme 2 \[ Mus musculus \(house mouse\) \]](#)

**Official Symbol** [Bace2](#)

**Synonyms** ARP1; ASP1; BAE2; DRAP; AEPLC; ALP56; ASP21; CDA13; CEAP1; AI850424; 1110059C24Rik

**Gene ID** [56175](#)

**mRNA Refseq** [NM\\_019517.5](#)

**Protein Refseq** [NP\\_062390.3](#)

**UniProt ID** [Q9JL18](#)

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