

For Research Use Only

# Recombinant Human BACE1 protein (rFc Tag)



Catalog Number: Eg4497

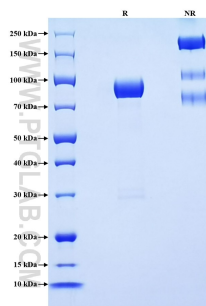
| Basic Information        | Species:<br>Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Purity:<br>>90 %, SDS-PAGE | Tag:<br>rFc Tag |
|--------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|-----------------|
| Technical Specifications | <p><b>Purity:</b><br/>&gt;90 %, SDS-PAGE</p> <p><b>Endotoxin Level:</b><br/>&lt;0.1 EU/μg protein, LAL method</p> <p><b>Source:</b><br/>HEK293-derived Human BACE1 protein Thr22-Thr457 (Accession# P56817-1) with a rabbit IgG Fc tag at the C-terminus.</p> <p><b>GeneID:</b><br/>23621</p> <p><b>Accession:</b><br/>P56817-1</p> <p><b>Predicted Molecular Mass:</b><br/>74.7 kDa</p> <p><b>SDS-PAGE:</b><br/>85-95 kDa, reducing (R) conditions</p> <p><b>Formulation:</b><br/>Lyophilized from 0.22 μm filtered solution in PBS, pH 7.4. Normally 5% trehalose and 5% mannitol are added as protectants before lyophilization.</p>                                                                                                                                                                      |                            |                 |
| Biological Activity      | Not tested                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                            |                 |
| Storage and Shipping     | <p><b>Storage:</b><br/>It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.</p> <ul style="list-style-type: none"><li>• Until expiry date, -20°C to -80°C as lyophilized proteins.</li><li>• 3 months, -20°C to -80°C under sterile conditions after reconstitution.</li></ul> <p><b>Shipping:</b><br/>The product is shipped at ambient temperature. Upon receipt, store it immediately at the recommended temperature.</p>                                                                                                                                                                                                                                                                                                                              |                            |                 |
| Reconstitution           | Briefly centrifuge the tube before opening. Reconstitute at 0.1-0.5 mg/mL in sterile water.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                            |                 |
| Background               | <p>BACE1 is a gene that encodes for an enzyme, also known as Beta-secretase 1. It belongs to the protein class of enzymes and transporters and is predicted to be located in the membrane and intracellular regions. It has several splice variants with different lengths and masses, ranging from 267 to 501 amino acids in length. BACE1 is responsible for the proteolytic processing of the amyloid precursor protein (APP). It cleaves at the N-terminus of the A-beta peptide sequence, leading to the generation and extracellular release of beta-cleaved soluble APP, and a corresponding cell-associated C-terminal fragment. This process is a key step in the formation of amyloid beta peptide from amyloid precursor protein, which is central to the development of Alzheimer's disease.</p> |                            |                 |
| References               | <ol style="list-style-type: none"><li>1. Araki W. (2016) Brain Res Bull. 126(Pt 2):170-177.</li><li>2. Motoki K. et al. (2012) Brain Behav. 2(3):270-82.</li><li>3. Griffiths HH. et al. (2011) J Biol Chem. 286(38):33489-500.</li></ol>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                            |                 |
| Synonyms                 | ASP2, ASP21, Aspartyl protease 2, Beta secretase 1, Beta-secretase 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                            |                 |

For technical support and original validation data for this product please contact

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## Selected Validation Data



Purity of Recombinant Human BACE1 was determined by SDS-PAGE. The protein was resolved in an SDS-PAGE in reducing (R) and non-reducing (NR) conditions and stained using Coomassie blue.