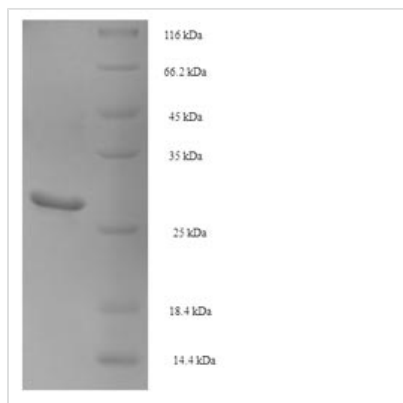




# Recombinant Pig Beta-nerve growth factor (NGF)

|                          |   |
|--------------------------|---|
| <b>Product Code</b>      | CSB-EP643662PI  |
| <b>Relevance</b>         | Nerve growth factor is important for the development and maintenance of the sympathetic and sensory nervous systems. Extracellular domain ligand for the NTRK1 and NGFR receptors, activates cellular signaling cascades through those receptor tyrosine kinase to regulate neuronal proliferation, differentiation and survival. Inhibits metalloproteinase dependent proteolysis of platelet glycoprotein VI. |
| <b>Abbreviation</b>      | Recombinant Pig NGF protein   |
| <b>Storage</b>           | The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.   |
| <b>Uniprot No.</b>       | Q29074  |
| <b>Alias</b>             | Beta-NGF  |
| <b>Product Type</b>      | Recombinant Protein   |
| <b>Immunogen Species</b> | Sus scrofa (Pig)  |
| <b>Purity</b>            | Greater than 90% as determined by SDS-PAGE.   |
| <b>Sequence</b>          | SSSHPVFHRGEFSVCDSVSVWVGDKTTATDIKGKEVMVLGEVNINNSVFKQY<br>FFETKCRDPNPVDSGCRGIDSKHWNSYCTTTHTFVKALTMDGKQAAWRFIRID<br>TACVCVLSRKAGRRA  |
| <b>Research Area</b>     | Others  |
| <b>Source</b>            | E.coli  |
| <b>Target Names</b>      | NGF   |
| <b>Expression Region</b> | 110-229aa   |
| <b>Notes</b>             | Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.   |
| <b>Tag Info</b>          | N-terminal 6xHis-SUMO-tagged  |
| <b>Mol. Weight</b>       | 29.4kDa   |
| <b>Protein Length</b>    | Full Length of Mature Protein   |
| <b>Image</b>             |   |



(Tris-Glycine gel) Discontinuous SDS-PAGE (reduced) with 5% enrichment gel and 15% separation gel.

## Description

Amino acids 110-229 constitute the expression domain of recombinant Pig NGF. The expected molecular weight for the NGF protein is calculated to be 29.4 kDa. This NGF recombinant protein is manufactured in e.coli. Fusion of the N-terminal 6xHis-SUMO tag into the NGF encoding gene fragment was conducted, allowing for easier detection and purification of the NGF protein in subsequent stages.

Pig beta-nerve growth factor (NGF) is a neurotrophic factor crucial for neuronal survival, development, and maintenance. It promotes neurite outgrowth, regulates synaptic plasticity, and influences neurotransmitter release. In neurobiology, NGF is vital for studying neuronal differentiation and neurodegenerative diseases. Its role in pain modulation makes it relevant in analgesic research. Additionally, NGF is implicated in immune responses and tissue repair. In regenerative medicine, NGF holds potential for nerve regeneration therapies. Studying NGF provides insights into neurotrophin biology, neuroregeneration, and pain modulation, offering avenues for therapeutic interventions in neurological disorders and pain management, as well as understanding its broader implications in immune function and tissue repair.

## Reconstitution

We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Please reconstitute protein in deionized sterile water to a concentration of 0.1-1.0 mg/mL. We recommend to add 5-50% of glycerol (final concentration) and aliquot for long-term storage at -20°C/-80°C. Our default final concentration of glycerol is 50%. Customers could use it as reference.

## Shelf Life

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