

## Active Recombinant Rat Bdnf protein, His-tagged

**Cat. No.** Bdnf-552R    **Lot. No.** (See product label)

### SPECIFICATION

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
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| <b>Product Overview</b> | Active Recombinant Rat Bdnf protein(P23363)(117~248 aa), fused with N-terminal His tag, was expressed in E.coli.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Species</b>          | Rat                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Source</b>           | E.coli                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>ProteinLength</b>    | 117-248 aa                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Form</b>             | Lyophilized from sterile 20mM Tris, 150mM NaCl, pH8.0, containing 1mM EDTA, 1mM DTT, 0.01% SKL, 5% Trehalose and Proclin300.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Bio-activity</b>     | Brain-derived neurotrophic factor, also known as BDNF is a member of the neurotrophin family of growth factors, which are related to the canonical Nerve Growth Factor. BDNF acts on certain neurons of the central nervous system and the peripheral nervous system, helping to support the survival of existing neurons, and encourage the growth and differentiation of new neurons and synapses. Besides, Amyloid Precursor Protein (APP) has been identified as an interactor of BDNF, thus a binding ELISA assay was conducted to detect the interaction of recombinant rat BDNF and recombinant rat APP. Briefly, BDNF were diluted serially in PBS, with 0.01% BSA (pH 7.4). Duplicate samples of 100uL were then transferred to APP-coated microtiter wells and incubated for 2h at 37°C. Wells were washed with PBST and incubated for 1h with anti-BDNF pAb, then aspirated and washed 3 times. After incubation with HRP labelled secondary antibody, wells were aspirated and washed 3 |

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times. With the addition of substrate solution, wells were incubated 15-25 minutes at 37°C. Finally, add 50µ stop solution to the wells and read at 450nm immediately. The binding activity of BDNF and APP was in a dose dependent manner.

|                       |                                                                                                            |
|-----------------------|------------------------------------------------------------------------------------------------------------|
| <b>Molecular Mass</b> | 16.3kDa                                                                                                    |
| <b>Endotoxin</b>      | <1.0EU per 1µg (determined by the LAL method).                                                             |
| <b>Purity</b>         | > 97% as determined by SDS-PAGE.                                                                           |
| <b>Storage</b>        | Avoid repeated freeze/thaw cycles. Store at -20°C for 12 months. Aliquot and store at -80°C for 12 months. |
| <b>Reconstitution</b> | Reconstitute in 20mM Tris, 150mM NaCl (pH8.0) to a concentration of 0.1-1.0mg/mL. Do not vortex.           |

## GENE INFORMATION

|                        |                                                                                                                            |
|------------------------|----------------------------------------------------------------------------------------------------------------------------|
| <b>Gene Name</b>       | <a href="#">Bdnf brain-derived neurotrophic factor [ Rattus norvegicus ]</a>                                               |
| <b>Official Symbol</b> | <a href="#">Bdnf</a>                                                                                                       |
| <b>Synonyms</b>        | BDNF; brain-derived neurotrophic factor; brain derived neurotrophic factor; brain derived neurothrophic factor; MGC105254; |
| <b>Gene ID</b>         | <a href="#">24225</a>                                                                                                      |
| <b>mRNA Refseq</b>     | <a href="#">NM_012513</a>                                                                                                  |
| <b>Protein Refseq</b>  | <a href="#">NP_036645</a>                                                                                                  |

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