

## Active Recombinant Mouse Igf1 protein, His-GST-tagged

Cat. No. Igf1-1655M Lot. No. (See product label)

### SPECIFICATION

|                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Product Overview | Active Recombinant Mouse Igf1 protein(Q8CAR0)(49~118 aa), fused with N-terminal His tag and GST tag, was expressed in E.coli.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Species          | Mouse                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Source           | E.coli                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| ProteinLength    | 49-118 aa                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Form             | Lyophilized from sterile PBS, pH7.4, containing 0.01% SKL, 1mM DTT, 5% Trehalose and Proclin300.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Bio-activity     | Insulin-like growth factor 1 (IGF1), also called somatomedin C is a hormone similar in molecular structure to insulin. It plays an important role in childhood growth and continues to have anabolic effects in adults. A synthetic analog of IGF1, mecasermin, is used for the treatment of growth failure. Besides, Insulin Like Growth Factor Binding Protein 3 (IGFBP3) has been identified as an interactor of IGF1, thus a binding ELISA assay was conducted to detect the interaction of recombinant mouse IGF1 and recombinant rat IGFBP3. Briefly, IGF1 were diluted serially in PBS, with 0.01% BSA (pH7.4). Duplicate samples of 100 µl were then transferred to IGFBP3-coated microtiter wells and incubated for 1h at 37°C. Wells were washed with PBST and incubated for 1h with anti-IGF1 pAb, then aspirated and washed 3 times. After incubation with HRP labelled secondary antibody, wells were aspirated and washed 5 times. With the addition of substrate solution, wells were incubated 15-25 minutes at |

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37°C. Finally, add 50 µ stop solution to the wells and read at 450 nm immediately. The binding activity of IGF1 and IGFBP3 was shown, and this effect was in a dose dependent manner, the EC50 was 1.06 ug/ml.

|                       |                                                                                                            |
|-----------------------|------------------------------------------------------------------------------------------------------------|
| <b>Molecular Mass</b> | 37.7kDa                                                                                                    |
| <b>Endotoxin</b>      | <1.0EU per 1µg (determined by the LAL method).                                                             |
| <b>Purity</b>         | > 90% 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 10mM PBS (pH7.4) to a concentration of 0.1-1.0 mg/mL. Do not vortex.                       |

## GENE INFORMATION

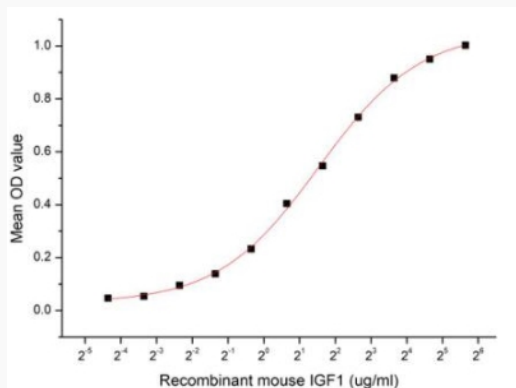
|                        |                                                                                                             |
|------------------------|-------------------------------------------------------------------------------------------------------------|
| <b>Gene Name</b>       | <a href="#">Igf1 insulin-like growth factor 1 [ Mus musculus ]</a>                                          |
| <b>Official Symbol</b> | <a href="#">Igf1</a>                                                                                        |
| <b>Synonyms</b>        | IGF1; insulin-like growth factor 1; insulin-like growth factor I; somatomedin; Igf-1; Igf-I; C730016P09Rik; |
| <b>Gene ID</b>         | <a href="#">16000</a>                                                                                       |
| <b>mRNA Refseq</b>     | <a href="#">NM_001111274</a>                                                                                |
| <b>Protein Refseq</b>  | <a href="#">NP_001104744</a>                                                                                |

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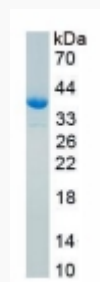
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## Activity



## SDS-PAGE



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