



# Recombinant Human Somatotropin (GH1) (Active)

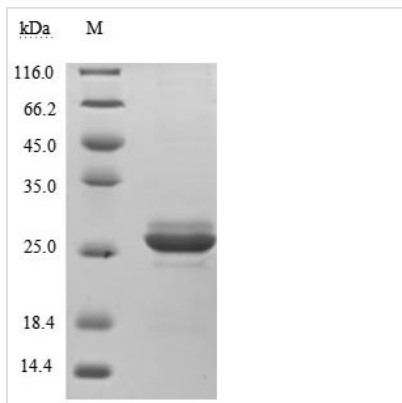
|                            |  |
|----------------------------|--|
| <b>Product Code</b>        | CSB-MP009407HU   |
| <b>Relevance</b>           | Plays an important role in growth control. Its major role in stimulating body growth is to stimulate the liver and other tissues to secrete IGF-1. It stimulates both the differentiation and proliferation of myoblasts. It also stimulates amino acid uptake and protein synthesis in muscle and other tissues.  |
| <b>Abbreviation</b>        | Recombinant Human GH1 protein (Active)   |
| <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>         | P01241   |
| <b>Storage Buffer</b>      | Lyophilized from a 0.2 μm filtered 20 mM Tris-HCl, 0.5 M NaCl, 6% Trehalose, pH 8.0  |
| <b>Product Type</b>        | Others   |
| <b>Immunogen Species</b>   | Homo sapiens (Human)   |
| <b>Biological Activity</b> | ①Measured by its binding ability in a functional ELISA. Immobilized GH1 at 1 μg/ml can bind human PRLR(CSB-MP018727HU1), the EC <sub>50</sub> of the protein is 60.71-69.65 ng/ml.②Measured by its binding ability in a functional ELISA. Immobilized GH1 at 1 μg/ml can bind human GHR(CSB-MP009411HU), the EC <sub>50</sub> of the protein is 19.28-25.29 ng/ml.③Human GH1 protein his/myc tag (CSB-MP009407HU) captured on COOH chip can bind Human GHR protein Fc tag (CSB-MP009411HU) with an affinity constant of 6.1 nM as detected by LSPR Assay.④Measured by its binding ability in a functional ELISA. Immobilized human GH1 at 2 μg/ml can bind Biotinylated human GHR (CSB-MP009411HUj1-B), the EC <sub>50</sub> is 2.067-3.208 ng/ml. |
| <b>Purity</b>              | ≥ 95% as determined by SDS-PAGE.<br>≥ 95% as determined by SEC-HPLC.   |
| <b>Sequence</b>            | FPTIPLSRLFDNAMLRAHRLHQLAFDTYQEFEEAYIPKEQKYSFLQNPQTSLCF<br>SESIPTPSNREETQQKSNLELLRISLLLIQSWLEPVQFLRSVFANSLVYGASDSN<br>VYDLLKDLEEGIQTLMGRLEDGSPRTGQIFKQTYSKFDTNSHNDDALLKNYGL<br>LYCFRKDMDKVETFLRIVQCRSVEGSCGF  |
| <b>Research Area</b>       | Developmental Biology  |
| <b>Source</b>              | Mammalian cell   |
| <b>Target Names</b>        | GH1  |
| <b>Expression Region</b>   | 27-217aa   |
| <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 10xHis-tagged and C-terminal Myc-tagged   |


**Mol. Weight**

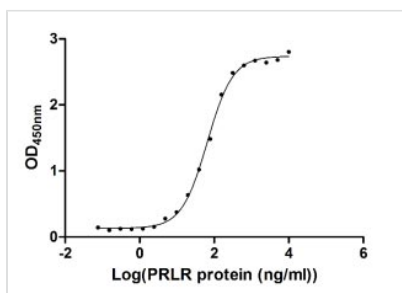
27.2 kDa

**Protein Length**

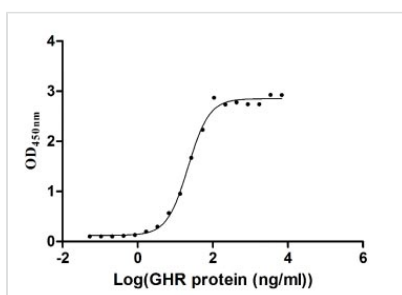
Full Length of Mature Protein

**Image**


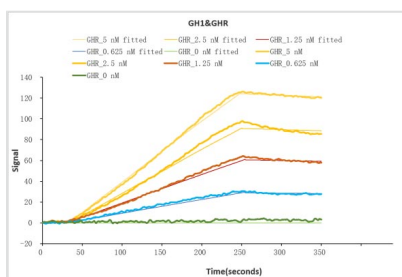
(Tris-Glycine gel) Discontinuous SDS-PAGE (reduced) with 5% enrichment gel and 15% separation gel.


**Activity**

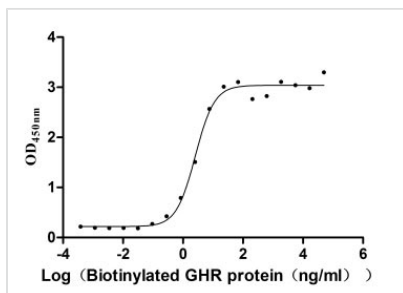
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**Activity**

Measured by its binding ability in a functional ELISA. Immobilized GH1 at 1  $\mu$ g/ml can bind human GHR(CSB-MP009411HU), the  $EC_{50}$  of the protein is 19.28-25.29 ng/ml.

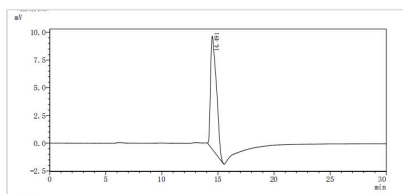


Human GH1 protein his/myc tag (CSB-MP009407HU) captured on COOH chip can bind Human GHR protein Fc tag (CSB-MP009411HU) with an affinity constant of 6.1 nM as detected by LSPR Assay.



**Activity**

Measured by its binding ability in a functional ELISA. Immobilized human GH1 at 2 µg/ml can bind Biotinylated human GHR (CSB-MP009411HUj1-B), the EC<sub>50</sub> is 2.067-3.208 ng/ml.



The purity of GH1 was greater than 95% as determined by SEC-HPLC

**Endotoxin**

Less than 1.0 EU/ug as determined by LAL method.

**Shelf Life**

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.