

## Insulin Recombinant Protein | INS recombinant protein

Human Insulin recombinant

|           |                                                                                                                            |
|-----------|----------------------------------------------------------------------------------------------------------------------------|
| CATALOG # | HOST                                                                                                                       |
| AAA76102  | E Coli (Host protein expression may be lot-specific and can be subject to change during production, including bulk orders) |

### PRODUCT SYNONYMS

Insulin; Human Insulin recombinant; insulin; INS recombinant protein

### PRODUCT SPECIFICATIONS

|                         |                                                                                                                                                                                                                                                                                                         |
|-------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Host                    | E Coli (Host protein expression may be lot-specific and can be subject to change during production, including bulk orders)                                                                                                                                                                              |
| Purity/Purification     | >97%, as determined by SDS-PAGE and HPLC                                                                                                                                                                                                                                                                |
| Form/Format             | Recombinant Insulin was lyophilized from a 0.2 um filtered solution with no additives.                                                                                                                                                                                                                  |
| Sequence Length         | 110                                                                                                                                                                                                                                                                                                     |
| Host Note               | Optimized DNA sequence encoding Human Insulin mature chain was expressed in Escherichia Coli.                                                                                                                                                                                                           |
| Endotoxin               | Endotoxin content was assayed using a LAL gel clot method.<br>Endotoxin level was found to be less than 0.1 ng/ug (1EU/ug).                                                                                                                                                                             |
| Reconstitution          | Centrifuge vial to ensure maximal product extraction, recommended 20s , 5K RPM.<br>Follow by reconstitution in distilled water to a concentration not less than 0.1mg/mL. If further dilutions are required it is recommended to dilute product in the formulation buffer as given in the presentation. |
| Molecular Weight Note   | Recombinant Insulin is a protein consisting of 51 amino acid residue subunits, and migrates as an approximateley 6 kDa protein under non-reducing conditions and reducing conditions in SDS-PAGE.                                                                                                       |
| Biological Activity     | Activity was determined to be 30 IU/mg.                                                                                                                                                                                                                                                                 |
| Preparation and Storage | Store lyophilized product at room temperature for 3 weeks or at -20°C for 12 months .<br>Store reconstituted prouct at 2-8°C for 3 weeks or at -20°C for 12 months.<br>*For long term storage, lab recommends the addition of a carier protein at 0.1%.<br>*Avoid repeated freeze/thaw cycles.          |

### ADDITIONAL INFORMATION

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|-------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Product Categories/Family for INS recombinant protein | Cytokines                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| References                                            | <ul style="list-style-type: none"> <li>• <a href="#">the endosymbiont wolbachia increases <b>Insulin</b>/igf-like signalling in drosophila</a> .<i>Proc R Soc B</i>, Nov 2009; 276: 3799 - 3807.</li> <li>• <a href="#">mutant huntingtin interacts with ?-tubulin and disrupts vesicular transport and <b>Insulin</b> secretion</a> .<i>Hum. Mol. Genet.</i>, Oct 2009; 18: 3942 - 3954.</li> <li>• <a href="#">Insulin is a stronger inducer of <b>Insulin</b> resistance than hyperglycemia in mice with type 1 diabetes mellitus (t1dm)</a> .<i>J. Biol. Chem.</i>, Oct 2009; 284: 27090 - 27100.</li> <li>• <a href="#">food <b>Insulin</b> index: physiologic basis for predicting <b>Insulin</b> demand evoked by composite meals</a> .<i>Am. J. Clinical Nutrition</i>, Oct 2009; 90: 986 - 992.</li> <li>• <a href="#">dietary protein during gestation affects maternal <b>Insulin</b>-like growth factor, <b>Insulin</b>-like growth factor binding protein, leptin concentrations, and fetal growth in heifers</a> .<i>J Anim Sci</i>, Oct 2009; 87: 3304 - 3316.</li> </ul> |

NCBI AND UNIPROT INFORMATION

|                           |                       |
|---------------------------|-----------------------|
| NCBI GI #                 | 4557671               |
| NCBI GeneID               | 3630                  |
| NCBI Accession #          | NP_000198.1           |
| NCBI GenBank Nucleotide # | NM_000207.2           |
| UniProt Accession #       | P01308; Q5EEX2        |
| NCBI Official Full Name   | insulin preproprotein |
| UniProt Protein Name      | Insulin               |
| UniProt Gene Name         | INS                   |
| UniProt Entry Name        | INS_HUMAN             |

**For Research Use Only.** Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

AAA Biotech | Tel: +1 (619) 604-9440 | Fax: +1 (619) 604-9441 | [contact@aaabiotech.com](mailto:contact@aaabiotech.com)  
Online datasheet: <https://stage.aaabiotech.com/ins-recombinant-protein-e-coli/76102>