

IGF-I Active Protein | IGF1 active protein

Fish (denis) IGF-I

CATALOG #
AAA60570

HOST
E Coli

PRODUCT SYNONYMS

IGF-I; Fish (denis) IGF-I; Fish gilthead seabream (*Sparus aurata*) IGF-I; IGF1 active protein

PRODUCT SPECIFICATIONS

Host	E Coli
Purity/Purification	Greater than 98.0% as determined by: (a) Analysis by reducing and non-reducing SDS-PAGE gel. (b) Gel-filtration chromatography under non denaturing conditions.
Form/Format	White lyophilized (freeze-dried) powder.
Sequence	Thesequenc eofthefirs ttenN-term inalaminao cidswasdet erminedand wasfoundto beMet-Ser- Pro-Glu-Th r-Leu-Cys- Gly-Ala-GI u.
Sequence Length	137
Solubility	It is recommended to reconstitute the lyophilized gsIGF-I in sterile 0.4% NaHCO ₃ adjusted, not less than 100ug/ml, which can then be further diluted to other aqueous solutions.
Protein Content	Protein quantization was carried out by UV spectroscopy at 280 nm using the absorbency value of 0.60 as the extinction coefficient for a 0.1% (1mg/ml) solution at pH 8.0. This value is calculated by the DNAMAN computer analysis program of protein sequences.
Dimers and Aggregates	The purified gsIGF-I consists of > 97% monomers as determined by gel-filtration chromatography.
Endotoxin	Less than 0.1 ng/ug (IEU/ug) of Gilthead Seabream IGF-I
Formulation	The protein was lyophilized from a concentrated (1mg/ml) solution with 0.02% NaHCO ₃ .
Biological Activity	Binding assays of the 125I-gsIGF-I to gilthead seabream or carp (<i>Cyprinus carpio</i>) sera resulted in high specific binding, indicating the existence of one or more IGF-binding proteins. In binding experiments to crude gilthead seabream brain homogenate, using human (h) IGF-I as a ligand, the respective IC ₅₀ value of hIGF-I was about fourfold lower than that of gsIGF-I. Recombinant gsIGF-I exhibited mitogenic activity in a mouse mammary gland-derived MME-L1 cell line which was approximately 200-fold lower than that of hIGF-1. Binding experiments to intact MME-L1 cells suggests that this difference most likely results from a correspondingly lower affinity for IGF-I receptor in these cells. In contrast, the activities of gsIGF-I and hIGF-I measured by 35S uptake by gill arches from the goldfish (<i>Carassius auratus</i>) were identical, indicating that the recombinant gsIGF-I is biologically active.
Preparation and Storage	Lyophilized gsIGF-I although stable at room temperature for several weeks, should be stored desiccated below -18 degree C. Upon reconstitution at > 0.1 gsIGF-I mg/ml and up to 2 2 mg/ml and filter sterilization gsIGF-I can be stored at +4 degree C

ADDITIONAL INFORMATION

Related Product Information for IGF1 active protein	Gilthead seabream (<i>Sparus aurata</i>) insulin-like growth factor-I (gsIGF-I) cDNA coding the mature protein was expressed in <i>Escherichia coli</i> . The expressed protein contained within the inclusion-body pellet was solubilized and purified to over 98% purity, as a monomeric methionyl-gsIGF-I. Amino acid composition and N-terminal sequence confirmed the identity to be the predicted protein. For reference see Fine et al., J Endocrinol. 1997 53:139-150.
Product Categories/Family for IGF1 active protein	Growth hormone and prolactin family; Hormones; Cytokines and Growth Factors

NCBI AND UNIPROT INFORMATION

NCBI GI #	184834
NCBI GeneID	3479
UniProt Accession #	P05019; P01343; Q14620; B2RWM7; E9PD02
NCBI Official Full Name	insulin-like growth factor I
NCBI Official Synonym Full Names	insulin-like growth factor 1 (somatomedin C)
NCBI Official Symbol	IGF1
NCBI Official Synonym Symbols	IGFI; IGF-I; IGF1A
NCBI Protein Information	insulin-like growth factor I; IGF-IA; IGF-IB; MGF; insulin-like growth factor IA; insulin-like growth factor IB; mechano growth factor; somatomedin-C
UniProt Protein Name	Insulin-like growth factor I
UniProt Gene Name	IGF1
UniProt Synonym Gene Names	IBP1; IGF-I; MGF
UniProt Entry Name	IGF1_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.

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Online datasheet: <https://stage.aaabiotech.com/e-coli-active-protein/igf-i/60570>