

Gilthead Seabream IGF-I

Synonyms: Somatomedin C, IGF-I, IGF1.

PLEASE NOTE: ALWAYS CENTRIFUGE VIAL BEFORE OPENING

Size	Order #	Lot #	Expiry Date
10 µg	1480.930.010		
50 µg	1480.930.050		
1 mg	1480.930.199		

Please enquire for bulk quantities and other vial sizes

Description

IGF1 Gilthead Seabream Recombinant produced in *E.Coli* is a single, non-glycosylated, polypeptide chain containing 68 amino acids and having a molecular mass of 7545.4 Dalton, the predicted pI=7.72.

- **Source** *E. Coli*
- **Purity** ≥ 98 % (SDS-PAGE, SEC-HPLC)
- **Endotoxin level** ≤ 0.1ng/µg (≤ 1EU/µg)
- **Buffer** The protein was lyophilized from a concentrated (1mg/ml) solution with 0.02% NaHCO₃*
- **Physical state** Sterile filtered, lyophilized

Biological Activity

Binding assays of the 125I-Gilthead Seabream IGF1 to Gilthead Seabream or carp (*Cyprinus carpio*) 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 IC₅₀ value of hIGF1 was about fourfold lower than that of Gilthead Seabream IGF-1. Recombinant Gilthead Seabream IGF-1 exhibited mitogenic activity in a mouse mammary gland-derived MME-L1 cell line which was approximately 200-fold lower than that of hIGF1. Binding experiments to intact MME-L1 cells suggests that this difference most likely results from a correspondingly lower affinity for IGF1 receptor in these cells. In contrast, the activities of Gilthead Seabream IGF-I and hIGF-I measured by ³⁵S uptake by gill arches from the goldfish (*Carassius auratus*) were identical, indicating that the recombinant Gilthead Seabream IGF-I is biologically active.

Reconstitution

It is recommended to reconstitute the lyophilized IGF-1 in sterile 0.4% NaHCO₃ adjusted to pH 8-9, not less than 100µg/ml, which can then be further diluted to other aqueous solutions.

Stability

Lyophilized IGF1 although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution IGF1 should be stored at 4°C between 2-7 days and for future use below -18°C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). **Please avoid repeated freeze-thaw cycles.**

Amino Acid Sequence

MSPETLCGAE LVDTLQFVCG ERGFYFSKPG YGPNARRSRG IVDECCFQSC ELRRLEMYCA PAKTSK

Usage: For research use only. Not for use in diagnostic or therapeutic procedures. Not for human use.

*The Buffer may vary depending on the Lot #. Please contact our technical support if you have specific requirements.

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