

Datasheet for KOA0194**Rat IGF-1 ELISA Kit****Overview**

Description:	Rat IGF-1 AccuSignal ELISA Kit - KOA0194
Item No.:	KOA0194
Size:	1 Kit
Applications:	ELISA
Reactivity:	Rat
Range:	62.5 pg/ml - 4000 pg/ml

Product Details**Background:**

Insulin-like growth factor 1(IGF-1) that was once called somatomedin C, is a polypeptide protein hormone similar in molecular structure to insulin. It plays an important role in childhood growth and continues to have anabolic effects in adults. Human IGF1 is a single chain 70-amino acid polypeptide cross-linked by 3 disulfide bridges, with a calculated molecular mass of 7.6 kD. The IGF1 gene, mapped on 12q22-q24.1, contains 5 exons. Exons 1-4 encode the 195-amino acid precursor(IGF1B), and exons 1, 2, 3, and 5 encode the 153-residue peptide(IGF1A). The structure of IGF1 resembles that of IGF2. And the IGF1 and IGF2 genes have complex structures with multiple promoters. The expression of both genes is regulated at the levels of transcription, RNA processing, and translation. IGF-1 is produced primarily by the liver as an endocrine hormone as well as in target tissues in a paracrine/autocrine fashion. Moreover, approximately 98% of IGF-1 is always bound to one of 6 binding proteins(IGF-BP). Furthermore, IGF-1 is one of the most potent natural activators of the AKT signaling pathway, a stimulator of cell growth and multiplication and a potent inhibitor of programmed cell death.

Synonyms:

IBP1, IGF 1, IGF I, IGF IA, IGF IB, IGF-I, Igf1, IGF1_HUMAN, IGF1A, IGFI, Insulin like growth factor 1 (somatomedin C), Insulin like growth factor IA, Insulin like growth factor IB, Insulin-like growth factor I, Mechano growth factor, MGF, Somatomeidia C, Somatomedin C, Somatomedin-C

Detection Kit Type:

ELISA Kit

Detection Range:

62.5 pg/ml - 4000 pg/ml

Sensitivity:

<5 pg/ml

Target Details**Gene Name:**

IGF1

Reactivity:	Rat
Immunogen:	Expression system for standard: E.coli; Immunogen sequence: G49-A118
Purity/Specificity:	Natural and recombinant rat IGF-1. There is no detectable cross-reactivity with other relevant proteins.
Relevant Links:	• UniProtKB - P08025 • NCBI - NP_001075946.2 • GeneID - 24482 • KOA0194 Protocol

Application Details

Tested Applications:	ELISA
Application Note:	Useful in Sandwich ELISA for Quantitative Detection of Antigen. Aliquot 0.1ml per well of the 4000pg/ml, 2000pg/ml, 1000pg/ml, 500pg/ml, 250pg/ml, 125pg/ml, 62.5pg/ml rat IGF-1 standard solutions into the precoated 96-well plate. Add 0.1ml of the sample diluent buffer into the control well (Zero well). Add 0.1ml of each properly diluted sample of rat cell culture supernates, serum or plasma (heparin, EDTA) to each empty well. It is recommended that each rat IGF-1 standard solution and each sample be measured in duplicate.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.

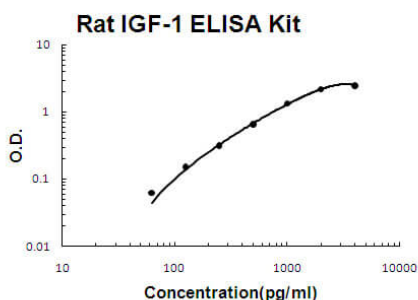
Formulation

Anticoagulant:	Heparin Sodium
-----------------------	----------------

Shipping & Handling

Shipping Condition:	Wet Ice
Storage Condition:	Store vials at 4°C prior to opening. Centrifuge product if not completely clear after standing at room temperature. This product is stable for 6 months at 4°C as an undiluted liquid. Dilute only prior to immediate use. For extended storage freeze at -20°C or below for 12 months. Avoid cycles of freezing and thawing.
Expiration:	See kit insert for complete instructions.

Images



ELISA

Rat IGF-1 AccuSignal ELISA Kit standard curve. Assay Range: 62.5pg/ml-4000pg/ml. Sensitivity: <5pg/ml.

Disclaimer

This product is for research use only and is not intended for therapeutic or diagnostic applications. Please contact a technical service representative for more information. All products of animal origin manufactured by Rockland Immunochemicals are derived from starting materials of North American origin. Collection was performed in United States Department of Agriculture (USDA) inspected facilities and all materials have been inspected and certified to be free of disease and suitable for exportation. All properties listed are typical characteristics and are not specifications. All suggestions and data are offered in good faith but without guarantee as conditions and methods of use of our products are beyond our control. All claims must be made within 30 days following the date of delivery. The prospective user must determine the suitability of our materials before adopting them on a commercial scale. Suggested uses of our products are not recommendations to use our products in violation of any patent or as a license under any patent of Rockland Immunochemicals, Inc. If you require a commercial license to use this material and do not have one, then return this material, unopened to: Rockland Inc., P.O. BOX 5199, Limerick, Pennsylvania, USA.