

**P90055Ra01**

**Insulin Like Growth Factor Binding Protein 4 (IGFBP4)**

**Organism: Rattus norvegicus (Rat)**

***Instruction manual***

FOR IN VITRO USE AND RESEARCH USE ONLY

NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES

1th Edition (Revised in February, 2012)

## **[ DESCRIPTION ]**

**Protein Names:** Insulin Like Growth Factor Binding Protein 4

**Gene Names:** IGFBP4

**Size:** 100µg

**Source:** Recombinant

**Expression Host:** *E.coli*

**Function:** IGF-binding proteins prolong the half-life of the IGFs and have been shown to either inhibit or stimulate the growth promoting effects of the IGFs on cell culture. They alter the interaction of IGFs with their cell surface receptors.

**Subcellular Location:** Secreted

## **[ PROPERTIES ]**

**Residues:** Asp22~Glu254 (Accession # P21744), with a N-terminal His-tag.

**Grade & Purity:** >97%, 27.27 kDa as determined by SDS-PAGE reducing conditions.

**Form & Buffer:** Supplied as lyophilized form in PBS, pH 7.4.

**Endotoxin Level:** <1.0 EU per 1µg(determined by the LAL method).

**Applications:** SDS-PAGE; WB; ELISA; IP.

(May be suitable for use in other assays to be determined by the end user.)

**Predicted Molecular Mass:** 27.27 kDa



## **[ PREPARATION ]**

Reconstitute in PBS.

## **[ STORAGE AND STABILITY ]**

**Storage:** Store at 4°C for short term storage (1-2 weeks). Aliquot and store at -20°C or -80°C for long term storage. Avoid repeated freeze/thaw cycles.

**Valid period:** 12 months stored at -80°C.

## **[ BACKGROUND ]**

The target protein is fused with a His-tag and its sequence is listed below. The first Met is an initiator amino acid. Moreover, Gly and Ser are added to improve the flexibility of N-terminus at both ends of the His-tag, which will increase the chelating ability of the tag to Ni-Sepharose during purification.

MGHHHHHSGSEF-GDEAIHCPPC SEEKLARCRP PVGCEELVRE PGCGCCATCA LGLGMPCGVY  
TPRCGSGMRC YPPRGVEKPL RTLMHGQGVC TELSEIEAIQ ESLQTSKDKE SEHPNNSFNP CSAHDHRCLQ  
KHMAKVRDRS KMKVVGTPRE EPRPVPQGSC QSELHRLER LAASQSRTHE DLFIIPINC DRNGNFHPKQ  
CHPALDGQRG KCWCVDRKTG VKLPGGLEPK GELDCHQLAD SLQE

## **[ REFERENCES ]**

1. Gao L., et al. (1993) Biochem. Biophys. Res. Commun. 190:1053-1059.
2. Shimasaki S., et al. (1990) Mol. Endocrinol. 4:1451-1458.
3. The MGC Project Team (2004) Genome Res. 14:2121-2127.
4. Chelius D., et al. J. (2001) Endocrinol. 168:283-296.

