Active Insulin Like Growth Factor 2 (IGF2)

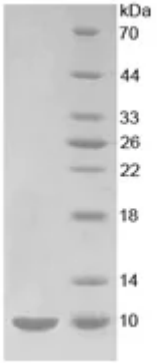
Catalog#:PEM12084

概述（Summary）

别称（Alternative Names）	INSIGF; IGF-II; Somatomedin A; Preptin; Insulin-like growth factor II Ala-25 Del
纯度（Purity）	Greater than 90% as determined by reducing SDS-PAGE.
内毒素（Endotoxin level）	Please contact with the lab for this information
蛋白构建（Construction）	【Ala25-Glu91】
Accession #	p09535
表达宿主（Host）	E.coli
种属（Species）	Mus musculus (Mouse)
预测分子量（Predicted MW）	8.5 kDa
制剂（Form）	Lyophilized from a 0.2 μm filtered solution of PBS, pH7.4, containing 0.01% SKL, 1mM DTT, 5% Trehalose and Proclin300.
运输方式（Shipping）	The product is shipped with ice bag. Upon receipt, store it immediately at the temperature listed below.
稳定性&储存（Stability &Storage）	12 months at -20°C to -80°C in lyophilized state.6 months at -20°C to -80°C under sterile conditions after reconstitution.7-10 days at 2°C to 8°C under sterile conditions after reconstitution.Please minimize freeze-thaw cycles.
复溶（Reconstitution）	Reconstitute in 10mM PBS (pH7.4) to a concentration of 0.1-1.0 mg/mL. Do not vortex.
背景介绍（References）	The insulin-like growth factors possess growth-promoting activity. Major fetal growth hormone in mammals. Plays a key role in regulating fetoplacental development (Probable). IGF2 is influenced by placental lactogen (Probable). Also involved in tissue differentiation (Probable). In adults, involved in glucose metabolism in adipose tissue, skeletal muscle and liver (Probable). Acts as a ligand for integrin which is required for IGF2 signaling. Positively regulates myogenic transcription factor MYOD1 function by facilitating the recruitment of transcriptional coactivators, thereby controlling muscle terminal differentiation. Inhibits myoblast differentiation and modulates metabolism via increasing the

mitochondrial respiration rate.; Preptin undergoes glucose-mediated co-secretion with insulin, and acts as physiological amplifier of glucose-mediated insulin secretion. Exhibits osteogenic properties by increasing osteoblast mitogenic activity through phosphoactivation of MAPK1 and MAPK3.

电泳图（SDS-PAGE image）



Greater than 90% as determined by reducing SDS-PAGE.

活性图（Bioactivity image）

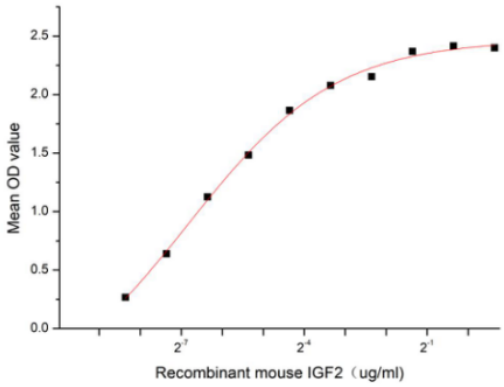


Figure 1. The binding activity of recombinant mouse IGF2 and recombinant mouse IGFBP2

Insulin-like growth factor 2 (IGF2) is one of three protein hormones that share structural similarity to insulin. It has growth-regulating, insulin-like and mitogenic activities. IGF2 exerts its effects by binding to the IGF-1 receptor and to the short isoform of the insulin receptor. IGF2 may also bind to the IGF2 receptor (also called the cation-independent mannose 6-phosphate receptor), which acts as a signalling antagonist; that is, to prevent IGF2 responses. Besides, Insulin Like Growth Factor Binding Protein 2 (IGFBP2) has been identified as an interactor of IGF2, thus a functional binding ELISA assay was conducted to detect the interaction of recombinant mouse IGF2 and recombinant mouse IGFBP2. Briefly, IGF2 were diluted serially in PBS, with 0.01% BSA (pH 7.4). Duplicate samples of 100 ul were then transferred to IGFBP2-coated microtiter wells and incubated for 2h at 37℃. Wells were washed with PBST and incubated for 1h with anti-IGF2 pAb, then aspirated and washed 3 times. After incubation with HRP labelled secondary antibody, wells were aspirated and washed 3 times. With the addition of substrate solution , wells were incubated 15-25 minutes at 37℃. Finally, add 50 µL stop solution to the wells and read at 450 nm immediately. The binding activity of recombinant mouse IGF2 and recombinant mouse IGFBP2 was shown in Figure 1, the EC50 for this effect is 0.009 ug/mL.

注意事项（Note）

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