

Mouse IGFBP3 ELISA Kit ab100692

3 References 3 Images

Overview

Product name	Mouse IGFBP3 ELISA Kit
Detection method	Colorimetric
Sample type	Cell culture supernatant, Serum, Plasma
Assay type	Sandwich (quantitative)
Sensitivity	< 70 pg/ml
Range	54.87 pg/ml - 40000 pg/ml
Recovery	89 %

Sample specific recovery

Sample type	Average %	Range
Cell culture supernatant	105.5	93% - 112%
Serum	85.83	73% - 94%
Plasma	76.81	71% - 84%

Assay duration	Multiple steps standard assay
Species reactivity	Reacts with: Mouse
Product overview	<p>Abcam's IGFBP3 Mouse ELISA (Enzyme-Linked Immunosorbent Assay) kit is an <i>in vitro</i> enzyme-linked immunosorbent assay for the quantitative measurement of Mouse IGFBP3 in serum, plasma and cell culture supernatants.</p> <p>This assay employs an antibody specific for mouse IGFBP3 coated on a 96- well plate. Standards and samples are pipetted into the wells and IGFBP3 present in a sample is bound to the wells by the immobilized antibody. The wells are washed and biotinylated anti-mouse IGFBP3 antibody is added. After washing away unbound biotinylated antibody, HRP-conjugated streptavidin is pipetted to the wells. The wells are again washed, a TMB substrate solution is added to the wells and color develops in proportion to the amount of IGFBP3 bound. The Stop Solution changes the color from blue to yellow, and the intensity of the color is measured at 450 nm.</p>
Platform	Microplate

Properties

Storage instructions

Store at -20°C. Please refer to protocols.

Components	1 x 96 tests
20X Wash Buffer	1 x 25ml
500X HRP-Streptavidin Concentrate	1 x 200µl
5X Assay Diluent B	1 x 15ml
Assay Diluent C	1 x 30ml
Biotinylated anti-Mouse IGFBP3	2 vials
IGFBP3 Microplate (12 x 8 wells)	1 unit
Recombinant Mouse IGFBP3 Standard (lyophilized)	2 vials
Stop Solution	1 x 8ml
TMB One-Step Substrate Reagent	1 x 12ml

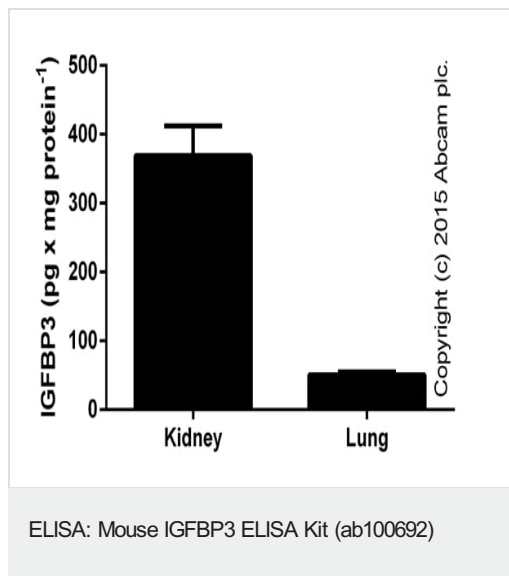
Relevance

Insulin like growth factor binding protein 3 (IGFBP3) is a member of the superfamily of insulin like growth factor (IGF) binding proteins which include six high affinity IGF binding proteins (IGFBP) and at least four low affinity binding proteins referred to as IGFBP related proteins (IGFBPrP). The IGFBP members are cysteine rich proteins with conserved cysteine residues clustered in the amino terminal and the carboxy terminal regions of the molecule. The cDNA sequence encoding the mature human IGFBP3 is fused to the signal peptide of CD33. Human IGFBP3 is the major IGF binding protein in plasma where it exists in a ternary complex with IGF I or IGF II and an acid labile subunit. IGFBPs hold a central position in IGF ligand-receptor interactions through influences on both the bioavailability and distribution of IGFs in the extracellular environment. Insulin like growth factor binding protein 3 (IGFBP3) can modulate the mitogenic and metabolic effects of the insulin like growth factors (IGFs). Insulin like growth factor binding protein 3 (IGFBP3) is expressed in multiple tissues. The highest expression level is found in the non paranchymal cells of the liver. The expression levels are higher during extrauterine life and peak during puberty. Insulin like growth factors (IGFs) and IGF binding proteins (IGFBPs) play important roles in cell growth and differentiation. IGFBP3 is one of the factors in serum that is responsible for high serum induced apoptosis in PC3 cells, a prostate cancer cell line. IGFBP3 is important in controlling glucose homeostasis with increased urinary levels in type I diabetes with persistent microalbuminuria.

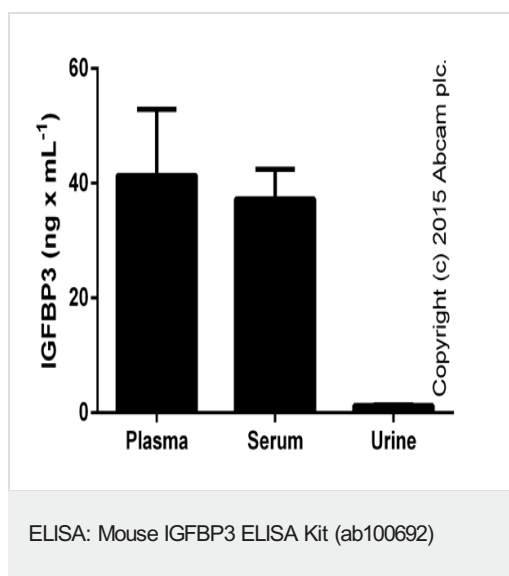
Cellular localization

Secreted

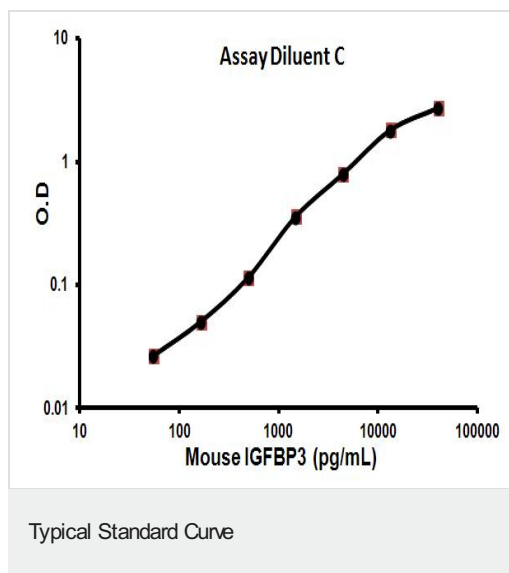
Images



IGFBP3 in mouse tissue lysates extracted with RIPA buffer. Data from kidney lysates diluted 1/50-1/250 (protein concentration 0.25-0.05 mg x mL⁻¹) and lung diluted 1/10 (0.75 mg x mL⁻¹) (duplicates +/- SD).



IGFBP3 in mouse biological fluids (duplicates +/- SD). Plasma and serum tested in the dilution range of 1/50-1/250, urine tested undiluted, rat and human samples (serum and plasma) were below level of detection at 1/10 dilution.



Representative Standard Curve using ab100692

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