

Product Specification Sheet

Anti-Human IGFBP-1 Antiserum and controls

Cat. # IGFBP12-M	Mouse mono anti-human IGFBP-1 protein IgG #2	Size: 100 ug
Cat. # IGFBP14-M	Mouse mono anti-human IGFBP-1 protein IgG #4	Size: 100 ug
Cat. # IGFBP11-C	Recombinant purified human IGFBP-1 protein control for WB	Size: 100 ul

Unlike insulin, both IGF-I and IGF-II circulate in plasma tightly bound to specific binding proteins. Two major forms of IGF-binding proteins have been identified in human plasma, a low molecular weight form and a high molecular weight form. The low molecular weight IGF-binding protein (IGFBP1) is synthesized in liver, secretory endometrium, and decidua. It binds both IGF I and IGF II with high affinity. Insulin-like growth factor binding protein-1 (IGFBP-1 ~30-kda; also known as IBP1 or placental protein 12, or IGF-BP25; chromosome 7p14-p12) is a member of the superfamily of insulin-like growth factor (IGF) binding proteins which include six high-affinity IGF binding proteins (IGFBP1-6) and at least four low-affinity binding proteins referred to as IGFBP related proteins (IGFBP-rP). The IGFBP members are cysteine-rich proteins with conserved cysteine residues, clustered in the amino-terminal and the carboxy-terminal regions of the molecule. Contained within IGFBP-1 and -2 is an integrin receptor recognition sequence (RGD) that is responsible for promoting cell migration by an IGF-independent action. IGFBPs hold a central position in IGF ligand-receptor interactions through influences on both the bioavailability and distribution of IGFs in the extracellular environment. IGFBPs will either inhibit or enhance the biological activities of IGF or act in an IGF-independent manner.

IBP-1, IGF-Binding Protein 1, AFBP, PP12, IGF-BP25, hIGFBP-1, IGFBP-1

Source of Antigen and Antibodies

Antigen	Human purified recombinant IGFBP-1 protein (#IGFBP15-R-10)
Ab Host/type	Mouse, monoclonal, Protein A/G purified IgG1 from ascites (cat # IGFBP12-M, clone 6305, IgG1) and cat # IGFBP14-M, clone 6306, IgG1)
2-ab	Goat Anti-mouse IgG-HRP conjugate Cat # 40320 (AP, biotin, FITC conjugates also available)
-ve control IgG	Cat # 20008-1, Mouse (non-immune) Serum IgG, purified, suitable for ELISA, Western, IHC as -ve control

Cat # IGFBP11-C

Human IGFBP-1 (218-aa ~28.8 kda, protein accession # P08833) was expressed in NSO cells protein and purified (>95%). For Western blot +ve control (**Cat # IGFBP11-C**) is supplied in SDS-PAGE sample buffer (reduced). Load 10 ul/lane of **IGFBP11-C** for good visibility with rabbit antibody Cat # **IGFBP11-S** or mouse monoclonal antibodies #IGFBP12-M or IGFBP14-M. Store at -20oC in suitable size aliquots. SDS may crystallize in cold conditions. It should redissolve by warming

before taking it from the stock. It should be heated once prior to loading on gels. If the product has been stored for several weeks, then it may be preferable to add 5 ul of fresh 2x sample buffer per 10 ul of the **IGFBP11-C** solution prior to heating and loading on gels. This preparation is not biologically active. It is not suitable for ELISA or other applications where native protein is required. Do not freeze, thaw, or heat repeatedly

Form & Storage of Antibodies/Peptide Control

Purified IgG
solution lyophilized powder
contains 0.05% sodium azide
Reconstitute powder in 100 ul PBS

Storage

Short-term: unopened, undiluted vials for less than a week at 4oC.

Long-term: at -20C or below in suitable aliquots after reconstitution. Do not freeze and thaw and store working, diluted solutions.

Stability: 6-12 months at -20oC or below.

Shipping: 4oC for solutions and room temp for powder.

Recommended Usage

Western Blotting (1:500-1:5K using ECL technique).

ELISA: Control antigen can be used to coat ELISA plates at 1 ug/ml and detected with antibodies (0.5-1 ug/ml for affinity pure).

#IGFBP12-M is recommended for coating
#IGFBP14-M is recommended for conjugate

Histochemistry & Immunofluorescence: Not tested.

Specificity & Cross-reactivity

Anti-IGFBP-1 antiserum reacts with human IGFBP-1 with minimal reaction with other IGFBPs. Antibody cross-reactivity in various species has not been studied. Purified human (# IGFBP11-C) and mouse IGFBP-1 proteins are available for control studies for western.

General References: Alitalo T et al (1989) Human Genet. 83, 335-338; Ballard FJ et al (1990) J. Clin. Endocrinol. Metabol. 70, 817-818; Brewer MT et al (1988) BBRC 152, 1289-1297; Brinkman A et al (1988) EMBO J. 7, 2417-2423;
*This product is for In vitro research use only.

Related material available from ADI

Human IGFBP-1 ELISA kits and antibodies for IGFBP1-6
Human IGBP1-6 antibodies and recombinant proteins
IGFBP11-S-C 80312A

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