

Product datasheet for **DM3558P**

Igfbp1 Rat Monoclonal Antibody [Clone ID: 12D24]

Product data:

Product Type:	Primary Antibodies
Clone Name:	12D24
Applications:	WB
Recommended Dilution:	Western Blot: 1/500 - 1/1000.
Reactivity:	Mouse
Host:	Rat
Isotype:	IgG2
Clonality:	Monoclonal
Immunogen:	Recombinant protein of IGF-BP1
Specificity:	This antibody detects IGF-BP1. No cross activity to other IGF-BPs.
Formulation:	State: Purified State: Lyophilized purified Ig
Reconstitution Method:	Restore with 200µl sterile PBS and the final concentration is 500µg/ml.
Purification:	Protein A/G affinity chromatography
Conjugation:	Unconjugated
Storage:	Prior to reconstitution store at -70°C. Following reconstitution store the antibody (in aliquots) at -20°C for 6 month. Avoid repeated freezing and thawing.
Stability:	Shelf life: one year from despatch.
Gene Name:	insulin-like growth factor binding protein 1
Database Link:	Entrez Gene 16006 Mouse P47876



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Background:

Insulin like growth factor binding protein 1 (IGFBP1) 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 N terminal and C terminal regions are highly homologous among rat, human and bovine sequences. Contained within IGFBP1 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.

Post translational modification of IGFBPs, including phosphorylation and proteolysis, will modify the affinities of the binding proteins for IGF and may indirectly regulate IGF actions. IGFBP1 is expressed in liver, decidua, and kidneys and is the major IGF binding protein in human amniotic fluid. In hepatocytes, IGFBP1 production is regulated at the transcriptional level due to the effects of insulin and corticosteroids. IGFBP1 is the major determinant of the level of free IGF in serum. The expression of IGFBP1 is inhibited by insulin, IGF1, and IGF2 and is stimulated by glucocorticoids, thyroid hormone, and epidermal growth factor (EGF), indicating an endocrine function. IGFBP1 shows inhibitory actions on cell proliferation and differentiation, presumably by interfering with the interactions between IGF and the IGF receptor (IGFR).

Synonyms:

IGF-binding protein 1, IGFBP-1, IBP1, IBP-1, Placental protein 12, PP12