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IGFBP7 Antibody

Purified Mouse Monoclonal Antibody
Catalog # AO1867a

Product Information

Application	WB, IHC, E
Primary Accession	Q16270
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Clone Names	1D9E7
Isotype	IgG1
Calculated MW	29130
Description	This gene encodes a member of the insulin-like growth factor (IGF)-binding protein (IGFBP) family. IGFBPs bind IGFs with high affinity, and regulate IGF availability in body fluids and tissues and modulate IGF binding to its receptors. This protein binds IGF-I and IGF-II with relatively low affinity, and belongs to a subfamily of low-affinity IGFBPs. It also stimulates prostacyclin production and cell adhesion. Alternatively spliced transcript variants encoding different isoforms have been described for this gene, and one variant has been associated with retinal arterial macroaneurysm (PMID:21835307).
Immunogen	Purified recombinant fragment of human IGFBP7 (AA: 52-156) expressed in E. Coli.
Formulation	Purified antibody in PBS with 0.05% sodium azide

Additional Information

Gene ID	3490
Other Names	Insulin-like growth factor-binding protein 7, IBP-7, IGF-binding protein 7, IGFBP-7, IGFBP-rP1, MAC25 protein, PGI2-stimulating factor, Prostacyclin-stimulating factor, Tumor-derived adhesion factor, TAF, IGFBP7, MAC25, PSF
Dilution	WB~~1/500 - 1/2000 IHC~~1/200 - 1/1000 E~~1/10000
Storage	Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	IGFBP7 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	IGFBP7
Synonyms	MAC25, PSF
Function	Binds IGF1 and IGF2 with a relatively low affinity. Stimulates prostacyclin (PGI2) production. Stimulates cell adhesion. Acts as a ligand for CD93 to play a role in angiogenesis (PubMed:38218180).
Cellular Location	Secreted.

Background

The protein encoded by this gene is a member of the MAP kinase family. MAP kinases act as an integration point for multiple biochemical signals, and are involved in a wide variety of cellular processes such as proliferation, differentiation, transcription regulation and development. This kinase is activated by various environmental stresses and proinflammatory cytokines. The activation requires its phosphorylation by MAP kinase kinases (MKKs), or its autophosphorylation triggered by the interaction of MAP3K7IP1/TAB1 protein with this kinase. The substrates of this kinase include transcription regulator ATF2, MEF2C, and MAX, cell cycle regulator CDC25B, and tumor suppressor p53, which suggest the roles of this kinase in stress related transcription and cell cycle regulation, as well as in genotoxic stress response. Four alternatively spliced transcript variants of this gene encoding distinct isoforms have been reported. ; ; ;

References

1. Sci Signal. 2012 Dec 18;5(255):ra92. 2. Cancer Biol Ther. 2012 Feb 1;13(3):148-55.

Images

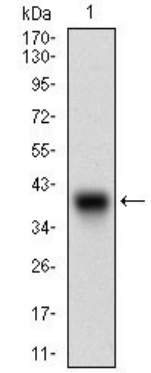

Figure 1: Western blot analysis using IGFBP7 mAb against human IGFBP7 recombinant protein. (Expected MW is 36 kDa)

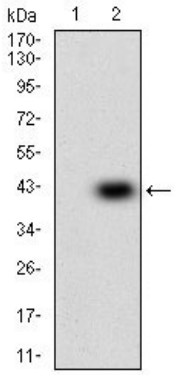

Figure 2: Western blot analysis using IGFBP7 mAb against HEK293 (1) and IGFBP7 (AA: 52-156)-hIgGFc transfected HEK293 (2) cell lysate.

Figure 3: Immunohistochemical analysis of paraffin-embedded ovarian cancer tissues using CK5 mouse mAb with DAB staining.

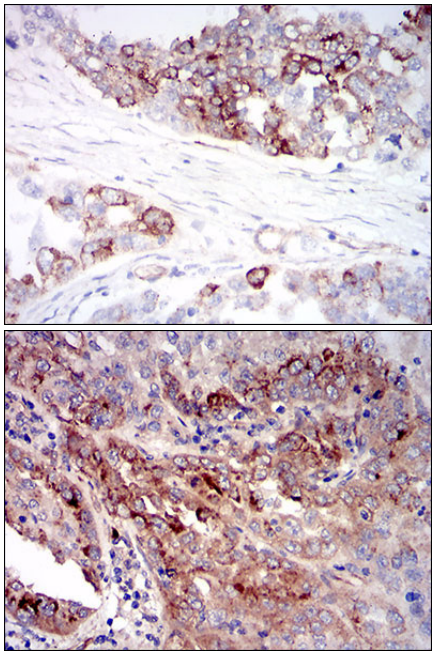

Figure 4: Immunohistochemical analysis of paraffin-embedded cervical cancer tissues using CK5 mouse mAb with DAB staining.