

IGFBP1 (D4E9T) XP® Rabbit mAb

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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W, IHC-P	H	Endogenous	30	Rabbit IgG	#P08833	3484

Product Usage Information**Application**

Western Blotting
Immunohistochemistry (Paraffin)

Dilution

1:1000
1:400

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibody.

For a carrier free (BSA and azide free) version of this product see product #84317.

Specificity/Sensitivity

IGFBP1 (D4E9T) Rabbit mAb recognizes endogenous levels of total IGFBP1 protein.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Pro240 of human IGFBP1 protein.

Background

Insulin-like growth factor-binding proteins (IGFBPs) play an integral role in modifying insulin-like growth factor (IGF) actions in a wide variety of cell types. There are six known IGFBP family members (IGFBP1-6), which are structurally related, but encoded by distinct genes. IGFBPs have high affinity for IGFs; in some contexts, IGFBPs inhibit IGF actions by preventing access to IGF receptors, while in others they potentiate IGF actions by facilitating ligand-receptor interaction (1-3). IGFBP1 is produced primarily by the liver and secreted into circulation, and studies show its expression can be negatively regulated by insulin (4, 5). Notably, low levels of IGFBP1 were shown to predict the future onset of Type 2 diabetes (5). Reduced expression of IGFBP1 expression was also associated with tumor progression in breast cancer, prostate cancer, pancreatic cancer and colorectal cancer, possibly stemming from reduced inhibition of mitogenic IGF signaling (6-9). Notably however, other research studies have reported increased levels of IGFBP1 in selected tumor types; in human schwannoma, increased IGFBP1 was associated with stimulation of the integrin β1/FAK pathway, supporting the concept of IGF-independent signaling functions for selected IGFBPs (10,11).

Background References

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3. Baxter, R.C. (2014) *Nat Rev Cancer* 14, 329-41.
4. Ross, R.J. et al. (1994) *J Endocrinol* 141, 377-82.
5. Lewitt, M.S. et al. (2014) *J Clin Med* 3, 1561-74.
6. Park, J.H. et al. (2015) *Neoplasia* 17, 421-33.
7. Wolpin, B.M. et al. (2007) *Cancer Res* 67, 7923-8.
8. Cao, Y. et al. (2015) *Int J Cancer* 136, 2418-26.
9. Purandare, S.M. et al. (2009) *Am J Med Genet A* 149A, 1740-8.
10. Ammoun, S. et al. (2012) *Oncogene* 31, 1710-22.
11. Wheatcroft, S.B. et al. (2009) *Trends Endocrinol Metab* 20, 153-162.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key

W: Western Blotting **IHC-P:** Immunohistochemistry (Paraffin)

Cross-Reactivity Key

H: Human

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