

IGFBP7 Antibody

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For Research Use Only. Not for Use in Diagnostic Procedures.

Applications: W	Reactivity: H	Sensitivity: Endogenous	MW (kDa): 32	Source/Isotype: Rabbit	UniProt ID: #Q16270	Entrez-Gene Id: 3490
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Product Usage Information**Application**

Western Blotting

Dilution

1:1000

Storage

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

Specificity/Sensitivity

IGFBP7 Antibody recognizes endogenous levels of total IGFBP7 protein.

Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues near the carboxy terminus of human IGFBP7 protein. Antibodies are purified by protein A and peptide affinity chromatography.

Background

IGFBP7 (also known as Mac25, TAF, or IGFBP-rP1) belongs to the IGFBP superfamily, which plays an integral role in regulating insulin-like growth factor (IGF) actions in a wide variety of cell types. There are six known high-affinity IGF binding family members (IGFBP1-6), and ten low-affinity IGF binding members. These family members are structurally related, but encoded by distinct genes (1,2). IGFBP7 is a low-affinity IGF binding protein (1). The protein functions through its binding to secreted growth factors including IGF1, insulin, and activin (3,4). IGFBP7 levels have been related to cancer development and tissue injury. Loss of expression of IGFBP7 has been associated with poor survival in multiple cancer types (5,6) and with tumor chemotherapy resistance (7,8). IGFBP7 also has been identified as a cell cycle arrest biomarker for human acute kidney injury (AKI) and serves as a prognostic indicator for early stage AKI development (9-11).

Background References

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2. Duan, C. (2002) *J Endocrinol* 175, 41-54.
3. Yamanaka, Y. et al. (1997) *J Biol Chem* 272, 30729-34.
4. Kato, M.V. (2000) *Mol Med* 6, 126-35.
5. Akiel, M. et al. (2014) *J Hepatocell Carcinoma* 1, 9-19.
6. Benatar, T. et al. (2012) *Breast Cancer Res Treat* 133, 563-73.
7. Verhagen, H.J. et al. (2014) *Cell Death Dis* 5, e1300.
8. Okamura, J. et al. (2012) *Cancer Biol Ther* 13, 148-55.
9. Kashani, K. et al. (2013) *Crit Care* 17, R25.
10. Kellum, J.A. and Chawla, L.S. (2016) *Nephrol Dial Transplant* 31, 16-22.
11. Gocze, I. et al. (2015) *PLoS One* 10, e0120863.

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

Cross-Reactivity Key

H: Human

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