

**IGFBP5 Antibody**

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

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W, IP	H	Endogenous	32	Rabbit	#P24593	3488

**Product Usage Information****Application**

Western Blotting  
Immunoprecipitation

**Dilution**

1:1000  
1:50

**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**

IGFBP5 Antibody recognizes endogenous levels of total human IGFBP5 protein.

**Source / Purification**

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Glu182 of human IGFBP5 protein. Antibodies are purified by protein A and peptide affinity chromatography.

**Background**

Insulin-like growth factor (IGF) signaling plays a major role in regulating the proliferation and metabolism of normal and malignant cells. IGF-binding proteins (IGFBPs) play an integral role in modifying IGF actions in a wide variety of cell types. The six IGFBP family members share a high affinity for IGF binding and are structurally related, but are encoded by distinct genes (1). IGFBPs can exert stimulatory or inhibitory effects by controlling IGF availability through high affinity binding of IGF at the carboxy-terminal domain (2,3). IGFBP5 belongs to the high affinity IGF binding family. The effects of IGFBP5 on cancer development are either positive or negative depending on the cancer type (4). IGFBP5 has been shown to regulate tumor cell survival, apoptosis, migration, and metastasis by mechanism of IGF-dependent or IGF-independent actions (4-6). Downregulation of IGFBP5 is associated with therapeutic resistance in breast cancer and esophageal carcinoma. Meanwhile, upregulation of the protein can reverse drug resistance (7-9).

**Background References**

1. Hwa, V. et al. (1999) *Endocr Rev* 20, 761-87.
2. Yu, H. and Rohan, T. (2000) *J Natl Cancer Inst* 92, 1472-89.
3. Martin, J.L. and Baxter, R.C. (2011) *Growth Factors* 29, 235-44.
4. Güllü, G. et al. (2012) *Chin J Cancer* 31, 266-80.
5. Hwang, J.R. et al. (2016) *Sci Rep* 6, 39334.
6. Ding, M. et al. (2016) *Nat Cell Biol* 18, 319-27.
7. Chan, D. et al. (2018) *Cells* 7, pii: E143. doi: 10.3390/cells7100143.
8. Wang, W. et al. (2018) *Mol Cancer Ther* 17, 1973-83.
9. Leyh, B. et al. (2015) *Oncotarget* 6, 39307-28.

**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 **IP:** Immunoprecipitation

**Cross-Reactivity Key**

**H:** Human

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