Revision 1

#52804 Store at -20C

FBP1 Antibody

Cell Signaling TECHNOLOGY®

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

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source:	UniProt ID:	Entrez-Gene Id:
WB	H	Endogenous	39	Rabbit	#P09467	2203

Product Usage Information

Application	Dilution
Western Blotting	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

FBP1 Antibody recognizes endogenous levels of total FBP1 protein.

Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues near the amino terminus of human FBP1 protein. Antibodies are purified by protein A and peptide affinity chromatography.

Background

Fructose-1,6-bisphosphatase 1 (FBP1 or FBPase 1), a rate limiting enzyme in gluconeogenesis, catalyzes the conversion of fructose-1,6-bisphosphate to fructose-6-phosphate (1). Inhibition of *FBP1* expression in basal-like breast cancer (BLBC) cells leads to metabolic reprogramming, including enhanced glycolysis, which leads to increased glucose uptake, biosynthesis of macromolecules, and activation of PKM2 (1). This metabolic reprogramming endows tumor cells with cancer stem cell (CSC)-like properties, thereby increasing their tumorigenicity (1). Depletion of FBP1 was also reported in more than 600 clear cell renal cell carcinoma (ccRCC) tumors, suggesting that FBP1 may inhibit ccRCC tumor progression (2).

Background References

1. Dong, C. et al. (2013) *Cancer Cell* 23, 316-31.
2. Li, B. et al. (2014) *Nature* 513, 251-5.

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

WB: Western Blotting

Cross-Reactivity Key

H: human **M:** mouse **R:** rat **Hm:** hamster **Mk:** monkey **Vir:** virus **Mi:** mink **C:** chicken **Dm:** D. melanogaster **X:** Xenopus **Z:** zebrafish **B:** bovine **Dg:** dog **Pg:** pig **Sc:** S. cerevisiae **Ce:** C. elegans **Hr:** horse **GP:** Guinea Pig **Rab:** rabbit **All:** all species expected

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