

Store at
-20C
#80784**TFCP2 (D1S3V) Rabbit mAb**

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

Applications: W, IP	Reactivity: H R Mk	Sensitivity: Endogenous	MW (kDa): 65	Source/Isotype: Rabbit IgG	UniProt ID: #Q12800	Entrez-Gene Id: 7024
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Product Usage Information**Application**

Western Blotting
Immunoprecipitation

Dilution

1:1000
1:100

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.

Specificity/Sensitivity

TFCP2 (D1S3V) Rabbit mAb recognizes endogenous levels of total TFCP2 protein.

Species predicted to react based on 100% sequence homology

Mouse, Xenopus, Zebrafish, Bovine

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues near the amino terminus of human TFCP2 protein.

Background

The transcription factor CP2 (TFCP2, LSF) is a ubiquitous nuclear protein that was initially shown to bind and activate the alpha-globin promoter in erythroid cells (1). Research studies show that TFCP2 functions as an oncogene in hepatocellular carcinoma (HCC) cells. Overexpression of TFCP2 is seen in HCC patient samples and cell lines; TFCP2 expression correlates with high tumor grade and poor prognosis (2). Forced expression of TFCP2 in less aggressive HCC cells results in highly aggressive, angiogenic and metastatic tumors, while inhibition of TFCP2 abrogates growth and metastasis of highly aggressive HCC cells (2). Additional studies show that TFCP2 acts downstream of Notch1 in HCC cells, where it mediates Notch pathway signaling during proliferation and invasion of hepatocellular carcinoma (3). TFCP2 functions as an oncogene as it upregulates multiple genes involved in angiogenesis, cell invasion, and chemoresistance, including osteopontin, metalloproteinase-9, fibronectin 1, tight junction protein 1, and thymidylate synthase (2-5). Factor quinolinone inhibitor 1 (FQI1) is a small molecule inhibitor of TFCP2 that inhibits TFCP2 DNA-binding activity, reduces expression of TFCP2 target genes, and rapidly induces cell death in TFCP2-overexpressing HCC cell lines (6).

Background References

1. Lim, L.C. et al. (1993) *J Biol Chem* 268, 18008-17.
2. Yoo, B.K. et al. (2010) *Proc Natl Acad Sci U S A* 107, 8357-62.
3. Fan, R.H. et al. (2011) *World J Gastroenterol* 17, 3420-30.
4. Santhekadur, P.K. et al. (2012) *J Biol Chem* 287, 3425-32.
5. Xu, X. et al. (2015) *J Exp Clin Cancer Res* 34, 6.
6. Grant, T.J. et al. (2012) *Proc Natl Acad Sci U S A* 109, 4503-8.

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 **R:** Rat **Mk:** Monkey

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