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CXXC4 Antibody

Catalog # ASC11230

Product Information

Application	WB, IF, E, IHC-P
Primary Accession	Q9H2H0
Other Accession	NP_079488, 13376816
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	20978
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	CXXC4 antibody can be used for detection of CXXC4 by Western blot at 1 g/mL. Antibody can also be used for immunohistochemistry starting at 10 g/mL. For immunofluorescence start at 20 g/mL.

Additional Information

Other Names	CXXC-type zinc finger protein 4, Inhibition of the Dvl and axin complex protein, CXXC4, IDAX
Target/Specificity	CXXC4;
Reconstitution & Storage	CXXC4 antibody can be stored at 4℃ for three months and -20℃, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.
Precautions	CXXC4 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	CXXC4
Synonyms	IDAX
Function	Acts as a negative regulator of the Wnt signaling pathway via its interaction with DVL1 (By similarity). Binds preferentially to DNA containing cytidine-phosphate-guanosine (CpG) dinucleotides over CpH (H=A, T, and C), hemimethylated-CpG and hemimethylated-hydroxymethyl- CpG (PubMed:29276034).
Cellular Location	Cytoplasm {ECO:0000250|UniProtKB:Q9EQC9}.

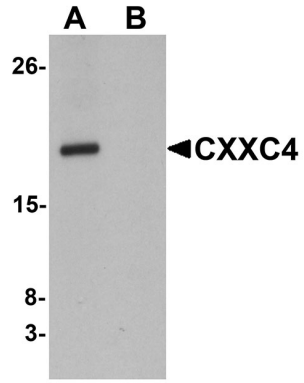
Background

CXXC4 Antibody: CXXC4 is zinc finger protein that binds directly to the PDZ domain of DVL1, a protein involved in the Wnt signaling pathway, through its C-terminal region. CXXC4's interaction with DVL1 competes with DVL1-AXIN binding, although the affinity of DVL1 for CXXC4 is lower than that for AXIN. In mouse fibroblasts, CXXC4 suppressed Wnt3a induction of beta-catenin and inhibited Wnt3a-dependent TCF4 activation, suggesting that CXXC4 acts as a negative regulator of the Wnt signaling pathway and functions between DVL and beta-catenin. Recent reports suggest that decreased CXXC4 expression is associated with kidney cancer metastasis, cell proliferation, reduced apoptosis in response to cancer drugs, and upregulation of genes involved with proliferation, invasion and cell survival, suggesting that CXXC4 plays a critical role in tumor progression in kidney cancer.

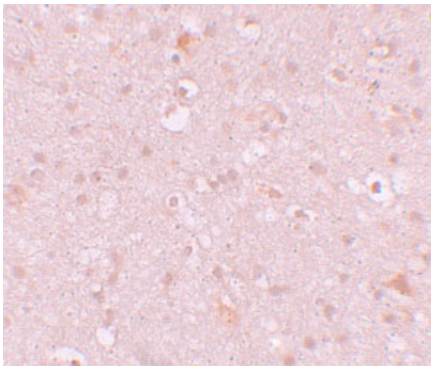
References

Hino S, Kishida S, Michuie T, et al. Inhibition of the Wnt signaling pathway by Idax, a novel Dvl-binding protein. Mol. Cell Biol.2001; 21:330-42.
Kojima T, Shimazui T, Hinotsu S, et al. Decreased expression of CXXC4 promotes a malignant phenotype in renal cell carcinoma by activating Wnt signaling. Oncogene2009; 28:297-305.

Images

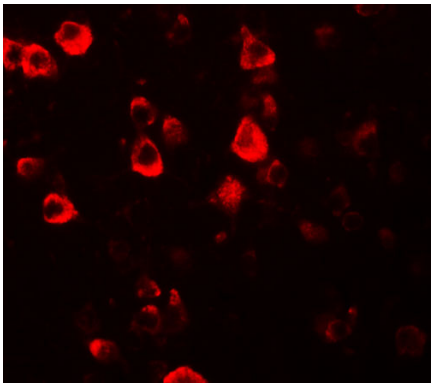


Western blot analysis of CXXC4 in human brain tissue lysate with CXXC4 antibody at 1 µg/mL in (A) the absence and (B) the presence of blocking peptide.



Immunohistochemistry of CXXC4 in human brain tissue with CXXC4 antibody at 10 µg/mL.

Immunofluorescence of CXXC4 in human brain tissue with CXXC4 antibody at 20 µg/mL.



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