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Spred2 Antibody

Catalog # ASC10784

Product Information

Application	WB, E
Primary Accession	Q7Z698
Other Accession	NP_861449, 189571669
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	47558
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	Spred2 antibody can be used for detection of Spred2 by Western blot at 1 - 2 g/mL.

Additional Information

Gene ID	200734
Other Names	Sprouty-related, EVH1 domain-containing protein 2, Spred-2, SPRED2
Target/Specificity	SPRED2; This Spred2 antibody is predicted to have no cross-reactivity to Spred1 or Spred3.
Reconstitution & Storage	Spred2 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	Spred2 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	SPRED2
Function	Negatively regulates Ras signaling pathways and downstream activation of MAP kinases (PubMed:15683364, PubMed:34626534). Recruits and translocates NF1 to the cell membrane, thereby enabling NF1- dependent hydrolysis of active GTP-bound Ras to inactive GDP-bound Ras (PubMed:34626534). Inhibits fibroblast growth factor (FGF)-induced retinal lens fiber differentiation, probably by inhibiting FGF-mediated phosphorylation of ERK1/2 (By similarity). Inhibits TGFB-induced epithelial-to-mesenchymal transition in lens epithelial cells (By similarity).
Cellular Location	Cell membrane; Peripheral membrane protein

	{ECO:0000250|UniProtKB:Q924S7}; Cytoplasmic side {ECO:0000250|UniProtKB:Q924S7}. Cytoplasmic vesicle, secretory vesicle membrane; Peripheral membrane protein; Cytoplasmic side. Cytoplasm. Note=Detected in the cytoplasm of the stratum spinosum cells, where it is associated with cytoplasmic vesicles that are supposed to be secretory granules
Tissue Location	Expressed in liver, skin, small intestine, salivary gland and prostate.

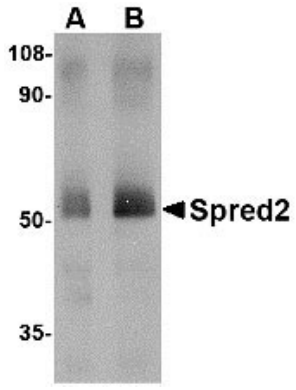
Background

Spred2 Antibody: Spred2 is a member of the Sprouty family, a group of proteins that act as negative regulators during development. Like Spred1, Spred2 acts by suppressing the phosphorylation and activation of Raf. The Spred proteins have also been implicated in the negative feedback regulation of FGF signaling in embryogenesis and angiogenesis. Further studies have shown that expression levels of Spred1 and Spred2 proteins are inversely correlated with the incidence of tumor invasion and metastasis in human hepatocellular carcinoma (HHC), suggesting that these proteins could be useful as prognostic factors and therapeutic targets in HCC. At least two isoforms of Spred2 are known to exist.

References

Wakioka T, Sasaki A, Kato R, et al. Spred is a Sprouty-related suppressor of Ras signalling. Nature2001; 412:647-51.
Casci T, Vinos J, and Freeman M. Sprouty, an intracellular inhibitor of Ras signaling. Cell1999; 96:655-65.
Minowada G, Jarvis LA, Chi CL, et al. Vertebrate Sprouty genes are induced by FGF signaling and can cause chondrodysplasia when overexpressed. Development1999; 126:4465-75.
Lee SH, Schloss DJ, Jarvis L, et al. Inhibition of angiogenesis by a mouse sprouty protein. J. Biol. Chem.2001; 276:4128-33.

Images



Western blot analysis of Spred2 in human small intestine tissue lysate with Spred2 antibody at (A) 1 and (B) 2 µg/mL.