

Spred2 Antibody
Catalog # ASC10784**Specification****Spred2 Antibody - Product Information**

Application	WB
Primary Accession	Q7Z698
Other Accession	NP_861449 , 189571669
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Application Notes	Spred2 antibody can be used for detection of Spred2 by Western blot at 1 - 2 µg/mL.

Spred2 Antibody - Additional InformationGene ID **200734****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°C for three months and -20°C, 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.

Spred2 Antibody - 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

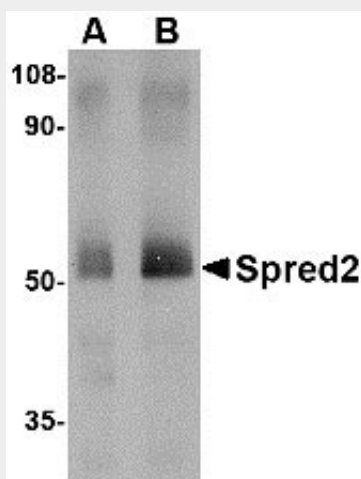
Expressed in liver, skin, small intestine, salivary gland and prostate.

Spred2 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Spred2 Antibody - Images



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

Spred2 Antibody - 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 (HCC), 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.

Spred2 Antibody - References

Wakioka T, Sasaki A, Kato R, et al. Spred is a Sprouty-related suppressor of Ras signalling. *Nature* 2001; 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.