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Spred1 Antibody
Catalog # ASC10778

Specification

Spred1 Antibody - Product Information

Application	**WB, IHC**
Primary Accession	Q7Z699
Other Accession	NP_689807, 22749221
Reactivity	**Human, Mouse, Rat**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**IgG**
Application Notes	**Spred1 antibody can be used for detection of Spred1 by Western blot at 1 - 2 µg/mL. Antibody can also be used for immunohistochemistry starting at 2.5 µg/mL.**

Spred1 Antibody - Additional Information

Gene ID	**161742**

Target/Specificity
SPRED1;

Reconstitution & Storage
Spred1 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
Spred1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Spred1 Antibody - Protein Information

Name SPRED1

Function
Tyrosine kinase substrate that inhibits growth-factor- mediated activation of MAP kinase (By similarity). Negatively regulates hematopoiesis of bone marrow (By similarity). Inhibits fibroblast growth factor (FGF)-induced retinal lens fiber differentiation, probably by inhibiting FGF-mediated phosphorylation of ERK1/2 (By similarity). Attenuates actin stress fiber formation via inhibition of TESK1-mediated phosphorylation of cofilin (PubMed:18216281). Inhibits TGFB-induced epithelial-to-mesenchymal transition in lens epithelial cells (By similarity).

Cellular Location
Cell membrane; Peripheral membrane protein. Membrane, caveola; Peripheral membrane protein. Nucleus Note=Localized in cholesterol-rich membrane raft/caveola fractions

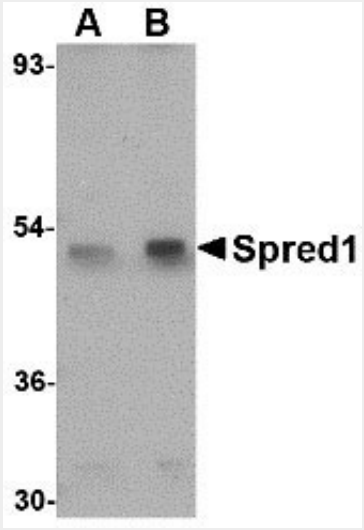
Tissue Location
Weakly expressed in embryonic cell line HEK293.

Spred1 Antibody - Protocols

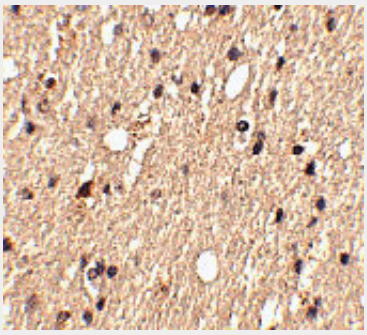
Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Spred1 Antibody - Images



Western blot analysis of Spred1 in mouse brain tissue lysate with Spred1 antibody at (A) 1 and (B) 2 µg/mL.



Immunohistochemistry of Spred1 in human brain tissue with Spred1 antibody at 2.5 µg/mL.

Spred1 Antibody - Background

Spred1 Antibody: The Ras-MAP kinase pathway is essential for the differentiation of neuronal cells and myocytes; it is inhibited by Spred1, a member of the Sprouty family of proteins. Spred1 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. Defects in this gene are a cause of neurofibromatosis type 1-like syndrome (NFLS). This Spred1 antibody is predicted to have no cross-reactivity to Spred2 or Spred3.

Spred1 Antibody - References

Wakioka T, Sasaki A, Kato R, et al. Spred is a Sprouty-related suppressor of Ras signalling. Nature2001; 412:647-51.
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.
Yoshida T, Hisamoto T, Akiba J, et al. Spreds, inhibitors of the Ras/ERK signal transduction, are dysregulated in human hepatocellular carcinoma and linked to the malignant phenotype of tumors. Oncogene2006; 25:6056-66.