

**Anti-Sprouty-4 (RABBIT) Antibody**  
**Sprouty-4 Antibody**  
**Catalog # ASR5286****Specification**

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**Anti-Sprouty-4 (RABBIT) Antibody - Product Information**

Host	Rabbit
Conjugate	Unconjugated
Target Species	Human
Reactivity	Human, Mouse
Clonality	Polyclonal
Application	WB, IHC, E, I, LCI
Application Note	This affinity purified antibody has been tested for use in ELISA, immunohistochemistry and western blot. Specific conditions for reactivity should be optimized by the end user. Expect a band (maybe a doublet) ~35 kDa in size corresponding to Sprouty-4 by western blotting in the appropriate cell lysate or extract. Some non-specific banding may be observed using this antibody.
Physical State	Liquid (sterile filtered)
Buffer	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Immunogen	This affinity purified antibody was prepared from whole rabbit serum produced by repeated immunizations with a synthetic peptide corresponding to a C-Terminal region near amino acids 275-299 of Human Sprouty-4 protein.
Preservative	0.01% (w/v) Sodium Azide

**Anti-Sprouty-4 (RABBIT) Antibody - Additional Information****Gene ID** 81848**Other Names**  
81848**Purity**

This affinity purified antibody is directed against human Sprouty-4 protein. The product was affinity purified from monospecific antiserum by immunoaffinity purification. A BLAST analysis was used to suggest reactivity with this protein from human and chimpanzee based on 100% homology for the immunogen sequence. Cross reactivity is expected with Sprouty-4.

**Storage Condition**

Store vial at -20° C prior to opening. Aliquot contents and freeze at -20° C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted

liquid. Dilute only prior to immediate use.

#### **Precautions Note**

This product is for research use only and is not intended for therapeutic or diagnostic applications.

### **Anti-Sprouty-4 (RABBIT) Antibody - Protein Information**

**Name** SPRY4

#### **Function**

Suppresses the insulin receptor and EGFR-transduced MAPK signaling pathway, but does not inhibit MAPK activation by a constitutively active mutant Ras (PubMed:<a href="http://www.uniprot.org/citations/12027893" target="\_blank">12027893</a>). Probably impairs the formation of GTP-Ras (PubMed:<a href="http://www.uniprot.org/citations/12027893" target="\_blank">12027893</a>). Inhibits Ras-independent, but not Ras-dependent, activation of RAF1 (PubMed:<a href="http://www.uniprot.org/citations/12717443" target="\_blank">12717443</a>). Represses integrin-mediated cell spreading via inhibition of TESK1-mediated phosphorylation of cofilin (PubMed:<a href="http://www.uniprot.org/citations/15584898" target="\_blank">15584898</a>).

#### **Cellular Location**

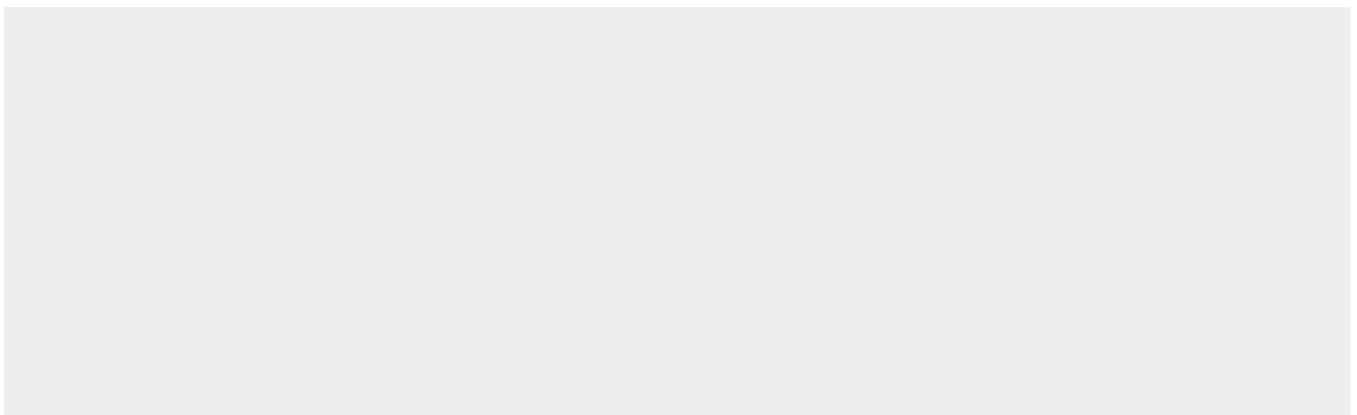
Cytoplasm. Cell projection, ruffle membrane; Peripheral membrane protein; Cytoplasmic side. Note=Found in the cytoplasm in unstimulated cells but is translocated to the membrane ruffles in cells stimulated with EGF (epidermal growth factor) (By similarity). Colocalizes with TESK1 in vesicular spots in the cytoplasm (PubMed:15584898) {ECO:0000250|UniProtKB:Q9WTP2, ECO:0000269|PubMed:15584898}

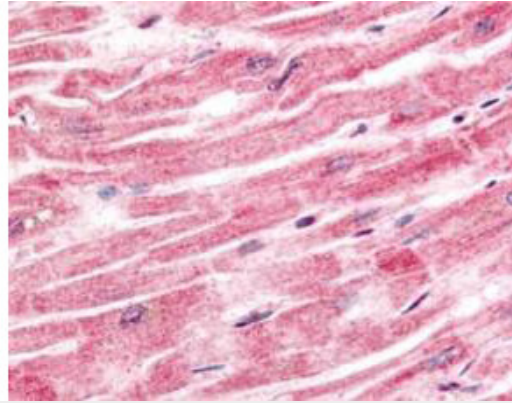
### **Anti-Sprouty-4 (RABBIT) Antibody - Protocols**

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](#)

### **Anti-Sprouty-4 (RABBIT) Antibody - Images**





Immunohistochemistry of Rabbit anti-Sprouty-4 antibody. Tissue: human heart tissue. Fixation: formalin fixed paraffin embedded. Antigen retrieval: not required. Primary antibody: Sprouty-4 antibody at 2.5 µg/ml for 1 h at RT. Secondary antibody: Peroxidase rabbit secondary antibody at 1:10,000 for 45 min at RT. Localization: Sprouty-4 is cytoplasmic. Staining: Sprouty-4 as precipitated red signal with hematoxylin purple nuclear counterstain.

#### **Anti-Sprouty-4 (RABBIT) Antibody - Background**

Sprouty-4 (also known as SPRY4) is an inhibitor of the insulin receptor and EGFR-transduced mitogen-activated protein kinase (MAPK) signaling pathway downstream of FGF and EGF receptor tyrosine kinase activation. It is positioned upstream of RAS activation and impairs the formation of active GTP-RAS. SPRY4 is widely expressed, with different isoforms. The protein consists of 322 amino acids, with a cysteine-rich region, Src homology 3 binding regions, proline-rich regions, and a PEST sequence. It is expressed predominantly in the cytoplasm. Northern results show bands across most tissues, with strongest expression in heart, brain, placenta, lung, and intestine.