

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human SPRED2 in direct ELISAs and Western blots. In direct ELISAs, approximately 10% cross-reactivity with recombinant human (rh) SPRED1 is observed and less than 3% cross-reactivity with rhSPRED4 is observed.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	<i>E. coli</i> -derived recombinant human SPRED2 Lys117-Ser297 Accession # Q7Z698
Conjugate	Alexa Fluor 405 Excitation Wavelength: 405 nm Emission Wavelength: 421 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. [General Protocols](#) are available in the Technical Information section on our website.

Western Blot	Optimal dilution of this antibody should be experimentally determined.
Immunocytochemistry	Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

BACKGROUND

SPRED2 (Sprouty-related protein with an EVH1 domain-2) is a 47-53 kDa member of the SPRED family of regulatory molecules. In human, it is found in keratinocytes, intestinal columnar epithelium, and salivary duct epithelium. It inhibits receptor tyrosine kinase (RTK) signaling by blocking Ras activation of Raf. This is achieved by inducing the lysosomal degradation of RTKs following SPRED2 binding to NBR1. Human SPRED2 is 418 amino acids (aa) in length. It contains an N-terminal WH1/EVH1 domain that is involved in ERK inhibition (aa 5-122), a central KBD domain that binds to the SCFR (aa 201-257), and a C-terminal Sprouty-related domain that mediates homodimerization, and heterodimerization with SPRED1 (aa 308-416). SPRED is ubiquitinated, and undergoes phosphorylation on Ser, Thr and Tyr residues. There is one splice variant that shows a six aa substitution for aa 1-9. Over aa 117-297, human SPRED2 shares 84% aa identity with mouse SPRED2.

PRODUCT SPECIFIC NOTICES

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