

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human sFRP-1 in direct ELISAs and Western blots. In direct ELISAs, less than 2% cross-reactivity with recombinant human (rh) sFRP-2, and rh sFRP-5 is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant human sFRP-1 (R&D Systems, Catalog # 1384-SF) Ser32-Lys314 Accession # AAB70793
Conjugate	Alexa Fluor 594 Excitation Wavelength: 590 nm Emission Wavelength: 617 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.
Immunohistochemistry	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

Secreted Frizzled Related Proteins (sFRPs) are a family of secreted, soluble vertebrate glycoproteins which contain homology to the Wnt-binding domain of the Frizzled (Fz) family of transmembrane receptors. sFRPs are approximately 30-35 kDa in size and are comprised of 3 domains: a signal sequence; an N-terminal Fz cysteine-rich domain (CRD) with 10 conserved cysteines; and a C-terminal heparin-binding region with weak homology to Netrin. The Fz CRD mediates Wnt-binding and is present in all Fz and sFRP family members (1).

sFRP-1, also known as secreted apoptosis-related protein 2 (SARP-2), FRP and FrzA, is expressed in the embryonic kidney, eye, brain, teeth, salivary gland and small intestine, most often at sites of epithelial-mesenchyme interaction (5). Expression in the adult animal is strong in the eye, kidney, and heart and also prevalent in the brain and lung (2, 5). sFRP-1 was first characterized as a protein that enhances the sensitivity of cells to apoptotic stimuli (3) and as an antagonist of Wnt signaling in *Xenopus* embryos (4). It is also characterized as a tumor suppressor in breast (6) and cervical carcinomas (7). In contrast, sFRP-1 is expressed by the majority of malignant gliomas (8) and contributes to the development of uterine leiomyomas (9), suggesting that the role of sFRP-1 is dependent on cell context. sFRP-1 has diverse activities, from inducing angiogenesis (10) in a variety of *in vivo* models to helping regulate Wnt-4 signaling (with sFRP-2) in renal organogenesis (11). Mouse and human sFRP-1 proteins share 94% amino acid identity (1).

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