

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse sFRP-3 in direct ELISAs and Western blots.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant mouse sFRP-3 Ala33-Ser323 Accession # P97401
Conjugate	Alexa Fluor 750 Excitation Wavelength: 749 nm Emission Wavelength: 775 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.
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 Protein 3 (sFRP-3) was originally identified in bovine cartilage for its chondrogenic ability. Human, mouse, chick and *Xenopus* clones have also been isolated. sFRP-3 is often referred to as FRZB, other names also include Fritz, Frzb1, and FRP-3. At the amino acid sequence level, sFRP-3 is highly conserved. The mouse protein shares 76% identity with *Xenopus* and 92% with human proteins. The gene for mouse sFRP-3 has been localized to the central region of chromosome 2. Murine sFRP-3 is expressed in the primitive streak during gastrulation, as well as in the retina, foregut diverticulum, nervous system, and posterior mesoderm during development. In adult tissues, sFRP-3 expression, as determined by Northern blot, is detected in the heart, brain, spleen, skeletal muscle, kidney, and testis.

The N-terminal portion of sFRP-3 protein shows 50% amino acid identity to the corresponding region of the *Drosophila* frizzled gene product, a receptor for Wg/Wnt signals. The similarity of sFRP-3 with frizzled proteins is restricted to the N-terminal cysteine-rich domain (CRD) that contains at least ten cysteine residues with highly conserved spacing between them. sFRP-3 was subsequently shown to be a soluble antagonist of Wnt signals. It lacks all transmembrane domains of frizzled proteins but retains the ability to bind Wnts. Ectopic expression of sFRP-3 mRNA has been shown to interfere with the induction of secondary axes in *Xenopus* embryos injected with Xwnt-8 mRNA.

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