

#### DESCRIPTION

|                           |                                                                                                                                                                                                                                                                             |
|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Species Reactivity</b> | Mouse                                                                                                                                                                                                                                                                       |
| <b>Specificity</b>        | Detects mouse sFRP-3 in direct ELISAs and Western blots.                                                                                                                                                                                                                    |
| <b>Source</b>             | Polyclonal Goat IgG                                                                                                                                                                                                                                                         |
| <b>Purification</b>       | Antigen Affinity-purified                                                                                                                                                                                                                                                   |
| <b>Immunogen</b>          | Mouse myeloma cell line NS0-derived recombinant mouse sFRP-3<br>Ala33-Ser323<br>Accession # P97401                                                                                                                                                                          |
| <b>Conjugate</b>          | Alexa Fluor 350<br>Excitation Wavelength: 346 nm<br>Emission Wavelength: 442 nm                                                                                                                                                                                             |
| <b>Formulation</b>        | Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide<br><br>*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.

|                             |                                                                        |
|-----------------------------|------------------------------------------------------------------------|
| <b>Western Blot</b>         | Optimal dilution of this antibody should be experimentally determined. |
| <b>Immunohistochemistry</b> | Optimal dilution of this antibody should be experimentally determined. |

#### PREPARATION AND STORAGE

|                                |                                                                                                                   |
|--------------------------------|-------------------------------------------------------------------------------------------------------------------|
| <b>Shipping</b>                | The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below. |
| <b>Stability &amp; Storage</b> | 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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