

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
Endotoxin Level	<0.10 EU per 1 µg of the antibody by the LAL method.
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 µm filtered solution in PBS.

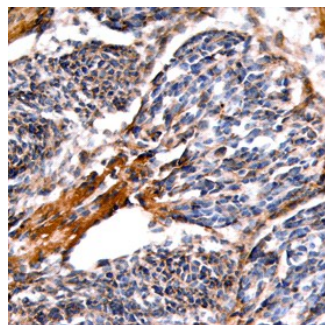
APPLICATIONS

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.

	Recommended Concentration	Sample
Western Blot	0.1 µg/mL	Recombinant Mouse sFRP-3 (Catalog # 592-FR)
Immunohistochemistry	5-15 µg/mL	See Below

DATA

Immunohistochemistry



sFRP-3 in Mouse Embryo. sFRP-3 was detected in immersion fixed frozen sections of mouse embryo (E15) using Mouse sFRP-3 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF592) at 15 µg/mL overnight at 4 °C. Tissue was stained using the Anti-Goat HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # CTS008) and counterstained with hematoxylin (blue). Specific staining was localized to dorsal root ganglia. View our protocol for [Chromogenic IHC Staining of Frozen Tissue Sections](#).

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.2 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

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.

References:

1. Hoang, *et al.* (1996) J. Biol. Chem. **271**:26131.
2. Leyns, *et al.* (1997) Cell **88**:747.
3. Wang, *et al.* (1997) Cell **88**:757.
4. Mayr, *et al.* (1997) Mech. Dev. **63**:109.
5. Rattner, *et al.* (1997) Proc. Natl. Acad. Sci. USA **94**:2859.