



# Recombinant Protein Technical Manual

## Recombinant Mouse sFRP2 Protein (His Tag)

RPE5242

### Product Data:

**Product SKU:** RPE5242

**Size:** 20µg

**Species:** Mouse

**Expression host:** HEK293 Cells

**Uniprot:** NP\_033170.1

### Protein Information:

**Molecular Mass:** 32.5 kDa

**AP Molecular Mass:** 36 kDa

**Tag:** C-His

**Bio-activity:**

**Purity:** > 95 % as determined by SDS-PAGE

**Endotoxin:** < 1.0 EU per µg of the protein as determined by the LAL method.

**Storage:** Lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.

**Shipping:** This product is provided as lyophilized powder which is shipped with ice packs.

**Formulation:** Lyophilized from sterile PBS, pH 7.4

**Reconstitution:** Please refer to the printed manual for detailed information.

**Application:**

**Synonyms:** AI851596;Sdf5

## Immunogen Information:

**Sequence:** Met 1-Cys 295

## Background:

The Secreted frizzled-related protein (SFRP) family consists of five secreted glycoproteins in humans (SFRP1~5) that act as extracellular signaling ligands. Each SFRP is approximately 300 amino acids in length and contains a cysteine-rich domain (CRD) that shares 30-50% sequence homology with the CRD of Frizzled (Fz) receptors, a putative signal sequence, and a conserved hydrophilic carboxy-terminal domain. SFRPs are able to bind Wnt proteins and Fz receptors in the extracellular compartment. The interaction between SFRPs and Wnt proteins prevents the latter from binding the Fz receptors. The Wnt pathway plays a key role in embryonic development, cell differentiation and cell proliferation. sFRP2 is a member of the SFRP family acting as soluble modulators of Wnt signaling and contains a cysteine-rich domain homologous to the putative Wnt-binding site of Frizzled proteins called FZ domain and a NTR domain. sFRP2 inhibits hypoxia induced endothelial cell apoptosis and increases endothelial cell migration. It prevents mesoderm specification and maintains the cells in the undifferentiated state. SFRP2 is also a novel stimulator of angiogenesis that stimulates angiogenesis via a calcineurin/NFAT pathway, thus is regarded as a favorable target for the inhibition of angiogenesis in solid tumors. Mouse sFRP2 is highly expressed in the eye and is also detected in heart and lung at low level.