



Recombinant Protein Technical Manual  
Recombinant Human sFRP4 Protein (His Tag)(Active)  
RPES3261

### Product Data:

**Product SKU:** RPES3261

**Size:** 20µg

**Species:** Human

**Expression host:** CHO Stable Cells

**Uniprot:** NP\_003005.2

### Protein Information:

**Molecular Mass:** 39 kDa

**AP Molecular Mass:** 39 kDa

**Tag:** C-His

**Bio-activity:** Measured by its ability to inhibit Wnt3a-induced alkaline phosphatase production by C3H10T 1/2 2A6 mouse embryonal fibroblast cells. The ED50 for this effect is typically 2-20 µg/mL in the presence of 20 ng/mL of Wnt3a.

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

**Endotoxin:** < 1.0 EU per µg 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:** FRP-4;FRPHE;sFRP-4

## Immunogen Information:

**Sequence:** Met 1-VAL346

## Background:

SFRP family consists of five secreted glycoproteins in humans acting as extracellular signaling ligands. Each 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 act as soluble modulators of Wnt signaling, counteracting Wnt-induced effects at high concentrations and promoting them at lower concentrations. 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. SFRP4 is a member of the SFRP family that contains a cysteine-rich domain homologous to the putative Wnt-binding site of Frizzled proteins called FZ domain and a NTR domain. Mouse SFRP4 is highly expressed in the ovary, and is localized to granulosa cells of periovulatory follicles and corpora lutea. It plays a critical role in placental development and implantation, and is also an important factor in the development of the decidual fibrinoid zone, and in trophoblast apoptosis.