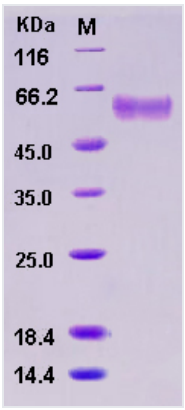
sFRP4 Mouse Recombinant Protein

PRODUCT OVERVIEW

Product Name	sFRP4, Recombinant Protein
Full Product Name	Recombinant Mouse sFRP4 Protein (His tag)
Product Gene Name	sFRP4 recombinant protein
Product Synonym Names	Sfrp4
Host	Human Cells
Form/Format	Lyophilized from sterile PBS, pH 7.4
Purity/Purification	> 97 % as determined by SDS-PAGE
Preparation and Storage	Samples are stable for up to twelve months from date of receipt at -70 degree C
Molecular Weight	40,342 Da
3D Structure	ModBase 3D Structure for Q9Z1N6
Predicted N Terminal	Ala 22
Endotoxin	< 1.0 EU per mug of the protein as determined by the LAL method
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Application Notes for sFRP4 recombinant protein	The recombinant mouse sFRP4 consists of 341 amino acids after removal of the signal peptide and has a predicted molecular mass of 39.4 kDa. In SDS-PAGE under reducing conditions, it migrates with an apparent molecular mass of 55-60 kDa due to glycosylation.
Related Product Information for sFRP4 recombinant protein	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. Description: A DNA sequence encoding the mouse sFRP4 (NP_057896.1) (Met 1-Ser 351) was expressed with a C-terminal polyhistidine tag.
Other Notes	Small volumes of sFRP4 recombinant protein vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for sFRP4 purchase	MBS2547179 is a recombinant protein targeting sFRP4. Also known as Recombinant Mouse sFRP4 Protein (His tag). Host: Human Cells.



SDS-PAGE of sFRP4 recombinant protein

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for sFRP4. It may not necessarily be applicable to this product.

NCBI GI #	7710094
NCBI GeneID	20379
NCBI Accession #	NP_057896.1
UniProt Primary Accession #	Q9Z1N6
UniProt Secondary Accession #	Q91ZX9
UniProt Related Accession #	Q9Z1N6
GenBank Nucleotide #	NM_016687.3
NCBI Official Full Name	secreted frizzled-related sequence protein 4
NCBI Official Synonym Full Names	secreted frizzled-related protein 4
NCBI Official Symbol	Sfrp4
UniProt Protein Name	Secreted frizzled-related sequence protein 4
Protein Family	Secreted frizzled-related protein
UniProt Gene Name	Sfrp4
UniProt Synonym Gene Names	FRP-4; sFRP-4
NCBI Protein Information	secreted frizzled-related sequence protein 4

UniProt Comments for sFRP4	SFRP4: Soluble frizzled-related proteins (sFRPS) function as modulators of Wnt signaling through direct interaction with Wnts. They have a role in regulating cell growth and differentiation in specific cell types. SFRP4 may act as a regulator of adult uterine morphology and function. Increases apoptosis during ovulation possibly through modulation of FZ1/FZ4/WNT4 signaling. Has phosphaturic effects by specifically inhibiting sodium-dependent phosphate uptake. Belongs to the secreted frizzled-related protein (sFRP) family. Protein type: Secreted; Secreted, signal peptide Chromosomal Location of Human Ortholog: 13 A2|13 6.99 cM Cellular Component: cell surface; cytoplasm; extracellular space; integral to membrane; nucleus Molecular Function: G-protein coupled receptor activity; Wnt receptor activity; Wnt-protein binding Biological Process: negative regulation of cell proliferation; negative regulation of JNK cascade; negative regulation of transcription factor activity; phosphate ion homeostasis; positive regulation of apoptosis; positive regulation of epidermal cell differentiation; positive regulation of receptor internalization; Wnt receptor signaling pathway through beta-catenin
Research Articles on sFRP4	**1.** Our study showed that Pyle's disease was caused by a deficiency of sFRP4 and that sFRP4-mediated cross-regulation between Wnt and BMP signaling was critical for achieving proper cortical-bone thickness and stability.
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