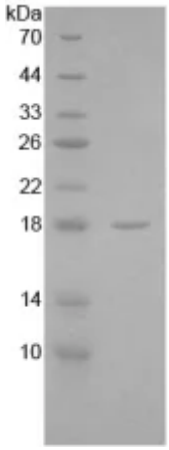
Active Secreted Frizzled Related Protein 1 (SFRP1)

Catalog#:PER12959

概述（Summary）

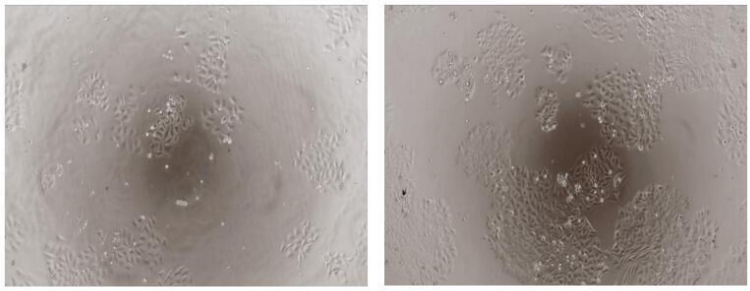
别称（Alternative Names）	FRP1; FRP; FRP-1; FrzA; SARP2; Secreted apoptosis-related protein 2
纯度（Purity）	Greater than 95% as determined by reducing SDS-PAGE.
内毒素（Endotoxin level）	Please contact with the lab for this information
蛋白构建（Construction）	【Val8-Asp153】
Accession #	Q9R168
表达宿主（Host）	E.coli
种属（Species）	Rattus norvegicus (Rat)
预测分子量（Predicted MW）	17.9 kDa
制剂（Form）	Lyophilized from a 0.2 μm filtered solution of 20mM Tris, 150mM NaCl, pH8.0, containing 1mM EDTA, 1mM DTT, 0.01% SKL, 5% Trehalose and Proclin300.
运输方式（Shipping）	The product is shipped with ice bag. Upon receipt, store it immediately at the temperature listed below.
稳定性&储存（Stability &Storage）	12 months at -20°C to -80°C in lyophilized state.6 months at -20°C to -80°C under sterile conditions after reconstitution.7-10 days at 2°C to 8°C under sterile conditions after reconstitution.Please minimize freeze-thaw cycles.
复溶（Reconstitution）	Reconstitute in 20mM Tris, 150mM NaCl (pH8.0) to a concentration of 0.1-1.0 mg/mL. Do not vortex.
背景介绍（References）	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. SFRP1 decreases intracellular beta-catenin levels. Has antiproliferative effects on vascular cells, in vitro and in vivo, and can induce, in vivo, an angiogenic response. In vascular cell cycle, delays the G1 phase and entry into the S phase. In kidney development, inhibits tubule formation and bud growth in metanephroi. Inhibits WNT1/WNT4-mediated TCF-dependent transcription.

电泳图（SDS-PAGE image）



Greater than 95% as determined by reducing SDS-PAGE.

活性图（Bioactivity image）



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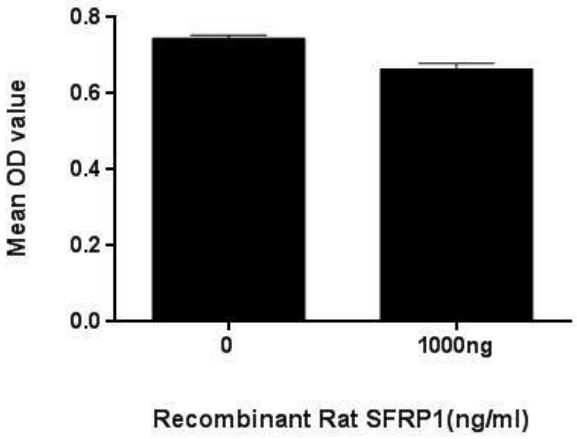
Secreted frizzled-related protein 1, also known as SFRP1 is a member of the SFRP family that contains a cysteine-rich domain homologous to the putative Wnt-binding site of Frizzled proteins. It acts as a biphasic modulator of Wnt signaling, counteracting Wnt-induced effects at high concentrations and promoting them at lower concentrations. As a tumor suppressor, SFRP1 expression markedly inhibited tumor cell growth in culture, soft agar and xenografts in athymic nude mice. Besides, Wingless Type MMTV Integration Site Family, Member 2 (WNT2) has been identified as an interactor of SFRP1, thus a binding ELISA assay was conducted to detect the interaction of recombinant rat SFRP1 and recombinant rat WNT2. Briefly, SFRP1 were diluted serially in PBS, with 0.01% BSA (pH 7.4). Duplicate samples of 100µL were then transferred to WNT2-coated microtiter wells and incubated for 2h at 37℃. Wells were washed with PBST and incubated for 1h with anti-SFRP1 pAb, then aspirated and washed 3 times. After incubation with HRP labelled secondary antibody, wells were aspirated and washed 3 times. With the addition of substrate solution, wells were incubated 15-25 minutes at 37℃. Finally, add 50µL stop solution to the wells and read at 450nm immediately. The binding activity of SFRP1 and WNT2 was shown in Figure 1, and this effect was in a dose dependent manner. Figure. The binding activity of SFRP1 with WNT2. To measuered the ability of SFRP1 on tumor suppression, liver cancer HepG2 cells were seeded into triplicate wells of 96-well plates at a density of 5,000 cells/well and allowed to attach, replaced with serum-free overnight, then the medium was replaced with 2% serum standard DMEM prior to the addition of various concentrations of recombinant rat SFRP1. After incubated for 96h, cells were observed by inverted microscope and cell proliferation was measured by Cell Counting Kit-8 (CCK-8). Briefly, 10µL of CCK-8 solution was added to each well of the plate, then the absorbance at 450nm was measured using a microplate reader after incubating the plate for 1-4 hours at 37℃. Suppression of HepG2 cells after incubation with SFRP1 for 96h observed by inverted microscope was shown in Figure 2. Cell viability was assessed by CCK-8 assay after incubation with recombinant SFRP1 for 96h. The result was shown in Figure 3. It was obvious that SFRP1 significantly decreased cell viability of HepG2 cells. (A) HepG2 cells cultured in DMEM, stimulated with 1000ng/mL SFRP1 for 96h; (B) Unstimulated HepG2 cells cultured in DMEM for 96h. Figure. Cell suppresstion of HepG2 cells after stimulated with SFRP1. Figure. Cell suppresstion of HepG2 cells after stimulated with SFRP1.



注意事项（Note）

For Research Use Only , Not for Diagnostic Use.