Recombinant Human sFRP-3

Catalog Number: 7584-SF/CF

DESCRIPTION

Source	Mouse myeloma cell line, NS0-derived Ala33-Asn325 Accession # AAB51298
N-terminal Sequence Analysis	Ala33
Predicted Molecular Mass	33.2 kDa

SPECIFICATIONS

SDS-PAGE	39 kDa, reducing conditions
Activity	Measured by its ability to inhibit proliferation of HeLa human cervical epithelial carcinoma cells. Ko, L. *et al.* (2002) Exp. Cell Res. **280**:280. The ED_{50} for this effect is 0.05-0.25 µg/mL.
Endotoxin Level	<0.01 EU per 1 µg of the protein by the LAL method.
Purity	>95%, by SDS-PAGE under reducing conditions and visualized by silver stain.
Formulation	Lyophilized from a 0.2 µm filtered solution in NaH_2PO_4 and NaCl. See Certificate of Analysis for details.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 250 µg/mL in PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	**Use a manual defrost freezer and avoid repeated freeze-thaw cycles.** ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 3 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

Secreted Frizzled Related Protein-3 (sFRP-3), also known as FRZB, belongs to a family of Wnt-binding proteins with homology to the ligand-binding domain of the Frizzled receptors. sFRPs are approximately 30-35 kDa in size and contain an N-terminal Frizzled-like domain with 10 conserved cysteines and a Netrin-like C-terminal domain (1-4). Mature human sFRP-3 shares 93% aa sequence identity with mouse and rat sFRP-3. It neutralizes the bioactivity of Wnt-1, -5a, -9a, Xenopus Xwnt-8, and EGF (5-8). sFRP-3 regulates somitic myogenesis and osteoblast differentiation as well as morphogenesis of the cochlear epithelium, hair follicle, and cardiac atrioventricular cushion (6, 8-10). sFRP-3 also functions as a tumor suppressor in a variety of cancers including melanoma, medulloblastoma, soft tissue sarcoma, and androgen-independent prostate cancer. It inhibits epithelial-mesenchymal transition, tumor growth and invasion, and the activity of MMP-2 and MMP-9 (7, 11-13). In contrast, it can promote tumor growth and angiogenesis in renal cancer (14).

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