

DESCRIPTION

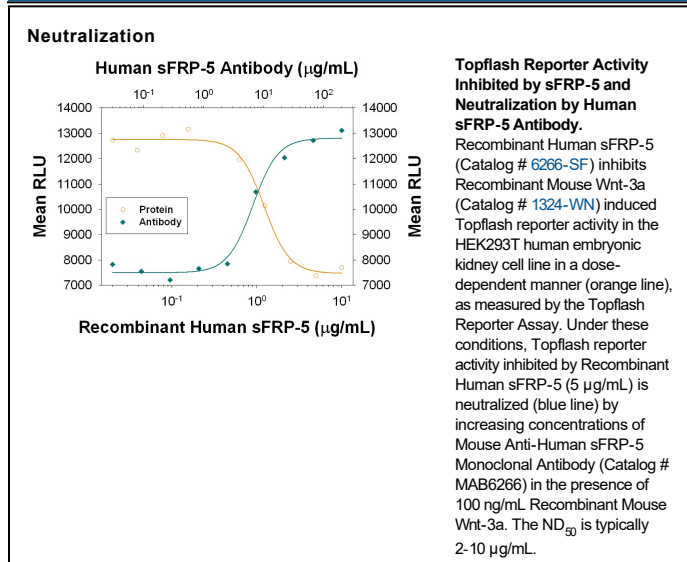
Species Reactivity	Human
Specificity	Detects human sFRP-5 in direct ELISAs.
Source	Monoclonal Mouse IgG _{2B} Clone # 707128
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Chinese hamster ovary cell line CHO-derived recombinant human sFRP-5 Glu30-His317 Accession # Q5T4F7
Endotoxin Level	<0.10 EU per 1 µg of the antibody by the LAL method.
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS.

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

Neutralization	Measured by its ability to neutralize sFRP-5 inhibited Topflash reporter activity in the HEK293T human embryonic kidney cell line. The Neutralization Dose (ND ₅₀) is typically 2-10 µg/mL in the presence of 5 µg/mL Recombinant Human sFRP-5 and 100 ng/mL Recombinant Mouse Wnt-3a.
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DATA



PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.5 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

Secreted Frizzled Related Protein-5 (sFRP-5), also known as SARP-3, 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 (1-3). Mature human sFRP-5 shares 96% aa sequence identity with mouse and rat sFRP-2 (4). During embryonic development, sFRP-5 is expressed in the anterior visceral endoderm, neural tube, foregut epithelium, and proliferating and prehypertrophic chondrocytes (5-8). sFRP-5 activity is required for the development of foregut, liver, ventral pancreas, and somites (6, 7). In the adult, sFRP-5 is expressed in the retinal pigment epithelium and pancreas (4, 9). sFRP-5 binds and antagonizes the function of mammalian Wnt-5a and Wnt-11 as well as *Xenopus* Xwnt-8, resulting in an inhibition of both canonical and non-canonical Wnt signaling (7, 9, 10). sFRP-5 down-regulation is common in breast and gastric cancer cells and is correlated with poor prognosis (11-13). It functions as a tumor suppressor by inhibiting epithelial-mesenchymal transition, invasiveness, and tumorigenicity of ovarian cancer cells (14). sFRP-5 plays an important role in maintaining glucose handling and insulin sensitivity (10). It is secreted by adipocytes and is down-regulated in mouse models of obesity and type 2 diabetes (10).

References:

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