



Recombinant Protein Technical Manual

Recombinant Human R-Spondin 1/RSP01 Protein (His Tag)(Active) RPES3773

Product Data:

Product SKU: RPES3773

Size: 5µg

Species: Human

Expression host: HEK293 Cells

Uniprot: NP_001033722.1

Protein Information:

Molecular Mass: 28.2 kDa

AP Molecular Mass: 42 kDa

Tag: C-His

Bio-activity: 1. Measured by its binding ability in a functional ELISA. Immobilized human RSP01 at 20 µg/ml (100 µl/well) can bind human LIMPII with a linear rangel of 32-800 ng/ml.2. Measured by its binding ability in a functional ELISA. Immobilized human RSP01 at 20 µg/ml (100 µl/well) can bind mouse CD36 with a linear rangel of 6.4-800 ng/ml.3. Measured by its ability to induce activation of βcatenin response in a Topflash Luciferase assay using HEK293T human embryonic kidney cells. The ED50 for this effect is typically 0.1-0.9 µg/mL in the presence of 5 ng/mL recombinant mouse 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: Functional ELISA

Synonyms:

RSPO1; R-spondin1; RP11-566C13.1; CRISTIN3; FLJ40906; RSPO Rspo1; R-spondin; Rspodin; RP23-325M14.2; Roof plate-specific spondin

Immunogen Information:

Sequence: Met 1-Ala 263

Background:

RSPO1 gene is a member of the R-spondin family. It encodes RSPO1 which is known as a secreted activator protein with two cystein-rich, furin-like domains and one thrombospondin type 1 domain. In mice, RSPO1 induces the rapid onset of crypt cell proliferation and increases intestinal epithelial healing, providing a protective effect against chemotherapy-induced adverse effects. This protein is an activator of the beta-catenin signaling cascade, leading to TCF-dependent gene activation. RSPO1 acts both in the canonical Wnt/beta-catenin-dependent pathway and in non-canonical Wnt signaling pathway, probably by acting as an inhibitor of ZNRF3, an important regulator of the Wnt signaling pathway. It also acts as a ligand for frizzled FZD8 and LRP6.