



Recombinant Protein Technical Manual

Recombinant Human RSPO3 Protein (aa 146, His Tag)(Active)
RPES3138

Product Data:

Product SKU: RPES3138

Size: 20µg

Species: Human

Expression host: HEK293 Cells

Uniprot: Q9BXY4

Protein Information:

Molecular Mass: 15.3 kDa

AP Molecular Mass:

Tag: C-His

Bio-activity: Measured by its binding ability in a functional ELISA.2. Immobilized RSPO3-His (146) at 10 µg/mL (100 µL/well) can bind human RNF43-Fc . The EC50 of human RNF43-Fc is 0.01-0.03µg/mL.

Purity: > 96 % as determined by reducing SDS-PAGE.

Endotoxin: < 1.0 EU per µg of the protein 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: R-spondin-3;RSPO3;Protein with TSP type repeat; Roof plate-specific spondin-3; Thrombospondin type domain-containing protein 2; PWTSR; THSD2; CRISTIN1

Immunogen Information:

Sequence: Met 1-Val 146

Background:

R-spondin 3 (RSPO3) is a member of the R-Spondin (RSPO) family in vertebrates that activate Wnt/beta-catenin signaling, plays a key role in these processes. The RSPO family of secreted Wnt modulators is involved in development and disease and holds therapeutic promise as stem cell growth factors. The four members have high structural homology. RSPO2 and RSPO3 are more potent than RSPO1, whereas RSPO4 is relatively inactive. All RSPO members require Wnt ligands and LRP6 for activity and amplify signaling of Wnt3A, Wnt1, and Wnt7A, suggesting that RSPO proteins are general regulators of canonical Wnt signaling. RSPO3/PCP signaling during gastrulation requires Wnt5a and is transduced via Fz7, Dvl, and JNK. RSPO3 functions by inducing Sdc4-dependent, clathrin-mediated endocytosis. RSPO3 is a novel, evolutionarily conserved angiogenic factor in embryogenesis. RSPO3 has a key role in the interaction between chorion and allantois in labyrinthine development.