



R Spondin-1 Fc fusion, human recombinant

Catalog # ZRD-RSPOFC-050; ZRD-RSPOFC-250; ZRD-RSPOFC-1000

Description R-spondin-1 is a natural enhancer of the canonical WNT pathway. When used together with WNT proteins that activate the beta-catenin pathway, R-spondin-1 enhances the activity of WNT. It regulates Wnt/ β -catenin by competing with the WNT antagonist DKK-1 for binding to the WNT co-receptors, Kremen and LRP-6, reducing their DKK-1-mediated internalization.

Injection of recombinant R-Spondin-1 into mouse causes activation of the β -catenin pathway and proliferation of intestinal crypt cells, which forms the basis for a clinical trial in amelioration of chemotherapy-induced colitis.

This product is the full-length R-Spondin-1 fused at its C-terminus to the Fc domain of human IgG1. This fusion increases the stability of the protein in vitro and in vivo without compromising its biological activity. Formulation Lyophilized in sterile filtered solution of PBS.

Reconstitution Before reconstitution, a brief spin is recommended to drive down any material dislodged from the bottom of the tube. The lyophilized protein should be reconstituted in sterile H₂O to a desired concentration.

Stability The lyophilized protein is stable for at least one year if stored at -80°C.

Reconstituted protein is stable for at least four weeks at 4°C, but should be stored in aliquots at -80°C for longer term. Avoid repeated freeze and thaw. Purity Greater than 90% as determined by SDS-PAGE analysis **Biological Activity** The activity was determined by using a TCF reporter gene assay in cultured human cells. The EC₅₀ ranges from 5 - 20 ng/ml in the presence of 10 ng/mL human WNT-3a. Activity in other assays should be determined by each individual setting.