

Human CellExp™ R-Spondin 3 /RSPO3 (22-146), human recombinant

CATALOG #:	7463-10	10 µg
ALTERNATE NAMES:	RSPO3, CRISTIN1, PWTSR, THSD2	
SOURCE:	HEK 293 cells (Gln 22 – Val 146)	
PURITY:	≥ 95% by SDS-PAGE gel	

MOL. WEIGHT: This protein is fused with 6xHis tag at the C-terminus, has a calculated MW of 15.3 kDa. The predicted N-terminus is Gln 22. DTT-reduced Protein migrates as 18 kDa and 24 kDa due to different glycosylation.

ENDOTOXIN LEVEL: <1 EU/µg by LAL method

FORM: Lyophilized

FORMULATION: Lyophilized from 0.22 µm filtered solution in PBS, pH 7.4. Normally Mannitol or Trehalose is added as protectants before lyophilization.

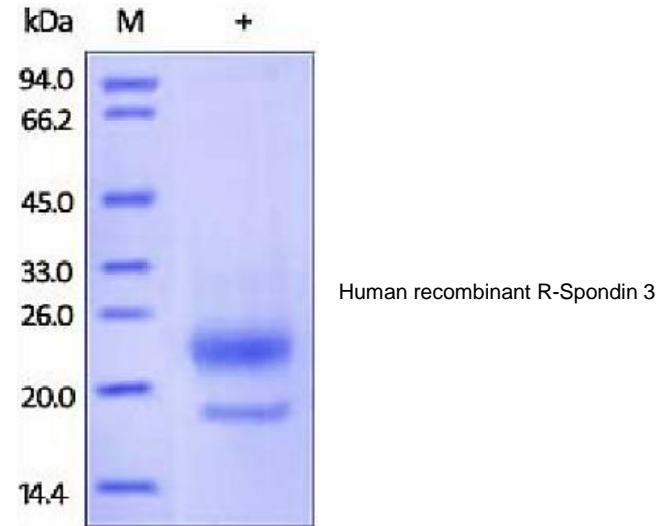
STORAGE CONDITIONS: Store at -20°C. After reconstitution, aliquot and store at -20°C and use within 3 months. Avoid repeated freezing and thawing cycles.

RECONSTITUTION: Centrifuge the vial prior to opening. Reconstitute in sterile PBS, pH 7.4 to a concentration of 50 µg/ml. Do not vortex. This solution can be stored at 2-8°C for up to 1 month. For extended storage, it is recommended to store at -20°C.

DESCRIPTION: R-Spondin 3 (RSPO3), also called cysteine-rich and single thrombospondin domain containing-1 (CRISTIN1), Protein with TSP type-1 repeat (PWTSR), is a member of the R-Spondin protein family. R-spondins (RSPO) are a recently discovered secretory protein family with four members in human and mouse. Although all four RSPO proteins activate the canonical Wnt pathway, RSPO2 and RSPO3 are more potent than RSPO1, whereas RSPO4 is relatively inactive. RSPO-3 is expressed ubiquitously and expressed at higher level in placenta, small intestine, fetal thymus and lymph node. RSPO3 is the activator of the beta-catenin signaling cascade, leading to TCF-dependent gene activation. RSPO3 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.

RSPO3 also acts as a ligand for frizzled FZD8 and LRP6 and may negatively regulate the TGF-beta pathway.

BIOLOGICAL ACTIVITY: Measured by its ability to induce activation of beta -catenin response in a Topflash Luciferase assay using HEK293T human embryonic kidney cells. The ED₅₀ for this effect is typically 0.5 - 2.0 ng/ml in the presence of 5 ng/mL rmWnt-3a.



RELATED PRODUCTS:

- R-Spondin-1, human recombinant (**Cat. No. 7189-10, -50**)
- R-Spondin-2, human recombinant (**Cat. No. 7190-10, -50**)
- R-Spondin-3, human recombinant (**Cat. No. 7191-10, -50**)
- Thrombospondin, human (**Cat. No. 4806-25**)
- Thrombospondin, human recombinant (**Cat. No. 4805-10, -50, -1000**)

FOR RESEARCH USE ONLY. Not to be used in humans