Datasheet for ABIN2181686

RSPO1 Protein (AA 21-146) (His tag)

3 Images

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Overview

Quantity:	50 µg
Target:	RSPO1
Protein Characteristics:	AA 21-146
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This RSPO1 protein is labelled with His tag.

Product Details

Sequence:	AA 21-146
Characteristics:	This protein carries a polyhistidine tag at the C-terminus. The protein has a calculated MW of 16.7 kDa. The protein migrates as 20-25 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.
Purity:	>95 % as determined by SDS-PAGE.
Sterility:	0.22 µm filtered
Endotoxin Level:	Less than 1.0 EU per µg by the LAL method.

Target Details

Target:	RSPO1
Alternative Name:	R-Spondin 1 (RSPO1 Products)

Target Details

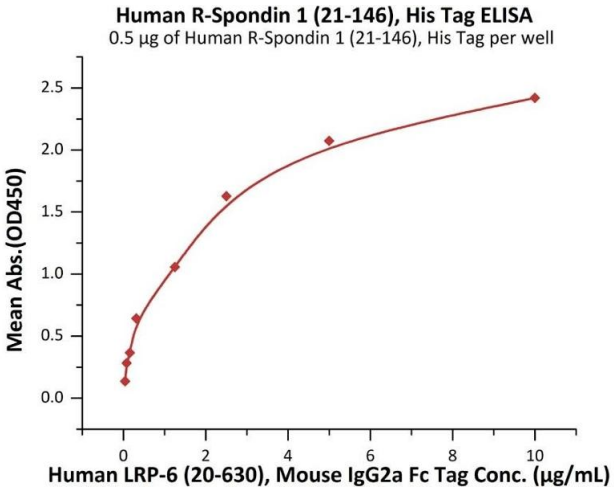
Background:	R-spondin-1 is also known as Roof plate-specific Spondin 1 (RSPO1) and cysteinerich and single thrombospondin domain containing protein 3 (Cristin 3), is a secreted protein which belongs to the R-Spondin family and encodes a secreted activator protein with two cystein-rich, furin-like domains and one thrombospondin type 1 domain. All Rspondins regulate Wnt/β-catenin signaling, but have distinct expression patterns. Like other R-Spondins, R-Spondin-1 contains two adjacent cysteinerich furinlike domains (aa 34-135) with one potential N-glycosylation site, followed by a thrombospondin (TSP1) motif (aa 147-207) and a region rich in basic residues (aa 211-263). Only the furinlike domains are needed for β-catenin stabilization. A putative nuclear localization signal at the C-terminus may allow some expression in the nucleus. Potential isoforms of 200 and 236 aa have an alternate, shorter N-terminus or are missing aa 146-208, respectively. R-Spondin-1 is expressed in early development at the roof plate boundary and is thought to contribute to dorsal neural tube development. Human RSPO1 disruption results in a recessive syndrome characterized by XX sex reversal, palmoplantar hyperkeratosis and predisposition to squamous cell carcinoma of the skin. It has been shown that the complete female-to-male sex reversal is due to the absence of the testis-determining gene, SRY. R-Spondin-1 regulates Wnt/β-catenin by competing with the Wnt antagonist DKK1 for binding to the Wnt co receptors, Kremen and LRP6, reducing their DKK1 mediated internalization. Reports differ on whether R-spondin 1 binds LRP6 directly.
Molecular Weight:	14.6 kDa

Application Details

Restrictions:	For Research Use only

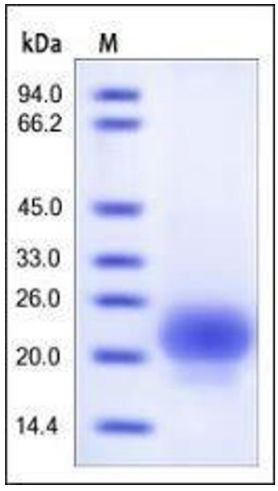
Handling

Format:	Lyophilized
Buffer:	PBS, pH 7.4
Handling Advice:	Please avoid repeated freeze-thaw cycles.
Storage:	-20 °C
Storage Comment:	No activity loss was observed after storage at: In lyophilized state for 1 year (4 °C-8 °C), After reconstitution under sterile conditions for 1 month (4 °C-8 °C) or 3 months (-20 °C to -70 °C).



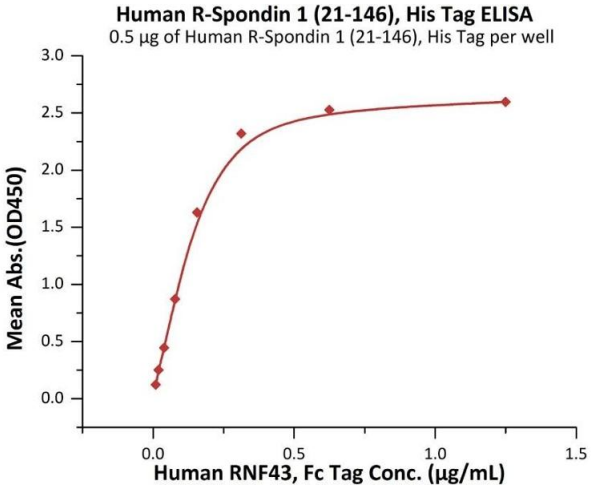
ELISA

Image 1. Immobilized Human R-Spondin 1 (21-146), His Tag (ABIN2181686,ABIN2181685) at 5 μg/mL (100 μL/well) can bind Human LRP-6 (20-630), Mouse IgG2a Fc Tag (ABIN6923175,ABIN6938849) with a linear range of 0.039-2.5 μg/mL (Routinely tested).



SDS-PAGE

Image 2. Human R-Spondin 1 (21-146), His Tag on SDS-PAGE under reducing (R) condition. The gel was stained overnight with Coomassie Blue. The purity of the protein is greater than 95%.



ELISA

Image 3. Immobilized Human R-Spondin 1 (21-146), His Tag (ABIN2181686,ABIN2181685) at 5 μg/mL (100 μL/well) can bind Human RNF43, Fc Tag (ABIN6973211) with a linear range of 0.01-0.156 μg/mL (QC tested).