

R-Spondin4 (G-13): sc-85856

BACKGROUND

Roof plate-specific spondins (R-Spondins) are secreted proteins that possess a Furin-like cysteine-rich domain and are involved in regulating β -catenin function. R-Spondin4, also known as RSP04, is a 234 amino acid secreted protein that, characteristic of R-Spondins, contains one Furin-like repeat and one TSP type-1 domain. R-Spondin4 interacts with heparin and is able to activate the β -catenin signaling cascade, possibly via control of the Wnt/ β -catenin signaling pathway. Defects in the gene encoding R-Spondin4 are the cause of anonychia, an autosomal recessive condition characterized by severe hypoplasia (underdevelopment) of fingernails and toenails. R-Spondin4 exists as multiple alternatively spliced isoforms that are encoded by a gene which maps to human chromosome 20.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: RSP04 (human) mapping to 20p13.

SOURCE

R-Spondin4 (G-13) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within an internal region of R-Spondin4 of human origin.

PRODUCT

Each vial contains 100 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-85856 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS

R-Spondin4 (G-13) is recommended for detection of R-Spondin4 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

R-Spondin4 (G-13) is also recommended for detection of R-Spondin4 in additional species, including equine.

Suitable for use as control antibody for R-Spondin4 siRNA (h): sc-76309, R-Spondin4 shRNA Plasmid (h): sc-76309-SH and R-Spondin4 shRNA (h) Lentiviral Particles: sc-76309-V.

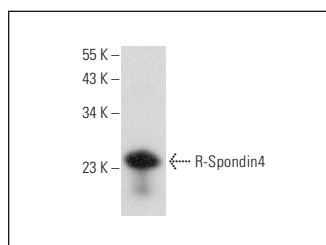
Molecular Weight of R-Spondin4: 26 kDa.

Positive Controls: human duodenum tissue extract.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



R-Spondin4 (G-13): sc-85856. Western blot analysis of R-Spondin4 expression in human duodenum tissue extract.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.