RSPO2/R-spondin-2 Protein, Mouse (Fc)

Cat. No.:	HY-P76013
Synonyms:	R-spondin-2; Cristin-2; Roof plate-specific spondin-2
Species:	Mouse
Source:	HEK293
Accession:	Q8BFU0 (N24-G205)
Gene ID:	239405
Molecular Weight:	Approximately 47.4 kDa

PROPERTIES

Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 μm filtered solution of PBS, pH 7.4. Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization.
Endotoxin Level	<1 EU/μg, determined by LAL method.
Reconsititution	It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH_2O.
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background	RSPO2, a pivotal activator of the canonical Wnt signaling pathway, serves as a ligand for LGR4-6 receptors, namely LGR4, LGR5, or LGR6. Upon binding to these receptors, the formed complex associates with phosphorylated LRP6 and frizzled receptors activated by extracellular Wnt receptors, thereby initiating the canonical Wnt signaling pathway and leading to increased expression of target genes. Additionally, RSPO2 acts as a regulator of both the canonical Wnt/beta-catenin-dependent pathway and non-canonical Wnt signaling by inhibiting ZNRF3, a key regulator of the Wnt signaling pathway. This multifaceted protein may also function as a ligand for frizzled and LRP receptors. Notably, during embryonic development, RSPO2 plays a crucial role in limb specification by amplifying the Wnt signaling pathway independently of LGR4-6 receptors, potentially by acting as a direct antagonistic ligand to RNF43 and ZNRF3, thus influencing the formation of limbs in embryos. Interactions with WNT1, heparin, and LGR4, LGR5, and LGR6 underscore the complexity of RSPO2's involvement in Wnt signaling regulation.

Caution: Product has not been fully validated for medical applications. For research use only.

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