R-Spondin-3 Human Chinese Hamster Ovary Cells (CHO)

Product Data Sheet

Type: Recombinant
Source: Chinese Hamster Ovary Cells (CHO)
Species: Human
Other names: PWTSR, THSD2, Roof, plate-specific spondin-3, RSPO3

Cat. No.:

RBG10282005	(5 µg)
RBG10282020	(20 µg)
RBG10282100	(100 µg)

Description

The R-Spondin (Rspo) proteins belong to the Rspo family of Wnt modulators. Currently, the family consists of four structurally-related, secreted ligands (Rspo 1-4), all containing furin-like and thrombospondin structural domains. The Rspo proteins can interact with the Frizzled/LRP6 receptor complex in a manner that causes the stabilization, and resulting accumulation, of the intracellular signaling protein, beta-catenin. This activity effectively activates and increases the subsequent nuclear signaling of beta-catenin. R-Spondin can also bind to the previously discovered G-protein coupled receptors, LGR-4 and LGR-5. Rspo/beta-catenin signaling can act as an inducer of the transformed phenotype, and can also regulate the proliferation and differentiation of certain stem cell populations. Recombinant Human R-Spondin-3 is a 26.9 kDa protein consisting of 240 amino acid residues. Due to glycosylation, R-Spondin-3 migrates at an apparent molecular weight of approximately 37.0 kDa by SDS PAGE analysis under reducing conditions.

Research topic

Cardiovascular disease, Coronary artery disease, Oncology

Amino Acid Sequence

```
MHPNVSQGCQ GGCATCSDYN GCLSCKPRLF FALERIGMKQ IGVCLSSCPS GYYGTRYPDI NKCTKCKADC DTCFNKNFCT
KCKSGFYLHL GKCLDNCPEG LEANNHTMEC VSIVHCEVSE WNPWSPCTKK GKTCGFKRGT ETRVREIIQH PSAKGNLCPP
TNETRKCTVQ RKKCQKGERG KKGRERKRKK PNKGESKEAI PDSKSLESSK EIPEQRENKQ QQKKRKVQDK QKSVSVSTVH
```

Source

Chinese Hamster Ovary Cells (CHO)

Purity

95%

Biological Activity

R-Spondin-3 enhances BMP-2-mediated differentiation of MC3T3-E1 cells. The expected ED_{50} for this effect is 0.8 - 2.0 µg/ml.

Endotoxin

Endotoxin level is <0.1 ng/µg of protein (<1EU/µg).

Reconstitution

Centrifuge the vial prior to opening. Reconstitute in water to a concentration of 0.1-1.0 mg/ml. Do not vortex. For extended storage, it is recommended to further dilute in a buffer containing a carrier protein (example 0.1% BSA) and store in working aliquots at-20°C to -80°C.

Storage, Stability/Shelf Life

-20°C

HEADQUARTERS: BioVendor Laboratorní medicína, a.s.	Karasek 1767/1	621 00 Brno CZECH REPUBLIC	Phone: +420-549-124-185 Fax: +420-549-211-460	E-mail: Web:	info@biovendor.com sales@biovendor.com www.biovendor.com
AUSTRIA: BioVendor GesmbH	Nußdorfer Straße 20/10	1090 Vienna AUSTRIA	Phone: +43-1-89090-25 Fax: +43-1-89090-2515	E-mail:	infoAustria@biovendor.com
GERMANY, SWITZERLAND: BioVendor GmbH	Otto-Hahn-Straße 16	34123 Kassel GERMANY	Phone: +49-6221-433-9100 Fax: +49-6221-433-9111	E-mail:	infoEU@biovendor.com
USA, CANADA AND MEXICO: BioVendor LLC	128 Bingham Rd. Suite 1300	Asheville, NC 28806 USA	Phone: +1-828-575-9250 +1-800-404-7807 Fax: +1-828-575-9251	E-mail:	infoUSA@biovendor.com