



## Recombinant Human R-Spondin-2

20150227BB



**FOR RESEARCH ONLY! NOT FOR HUMAN USE!**

<b>Cat.-no.:</b>	<b>100-426S</b>
<b>Size:</b>	5 µg
<b>Lot. No.:</b>	According to product label

### Scientific Background

<b>Gene-ID (NCBI):</b>	340419
<b>Synonyms:</b>	Roof plate-specific Spondin-2, RSPO2

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-2 is a 24.4 kDa protein consisting of 212 amino acid residues. Due to glycosylation, R-Spondin-2 migrates at an apparent molecular weight of approximately 30.0 kDa by SDS PAGE analysis under reducing conditions.

### Sequence

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ASYVSNPICK GCLSCSKDNG CSRCQQKLFF FLRREGMRQY  
GECLHSCPSG YYGHRAPDMN RCARCRLENC DSCFSKDFCT  
KCKVGFYLHR GRCFDECPDG FAPLEETMEC VEGCEVGHWS  
EWGTCSRNNR TCGFKWGLET RTRQIVKKPV KDTILCPTIA  
ESRRCKMTMR HCPGGKRTPK AKEKRNKXXX RKLIERAQEQ  
HSVFLATDRA NQ
```

### Database References

<b>Protein RefSeq:</b>	NP_848660.3
<b>Uniprot ID:</b>	Q6UXX9
<b>mRNA RefSeq:</b>	NM_178565.4

### Product Specifications

<b>Expressed in</b>	CHO cells
<b>Purity</b>	> 95% by SDS-PAGE & HPLC analyses
<b>Endotoxin level</b>	< 0.1 ng /µg of protein (<1EU/µg).
<b>Formulation</b>	lyophilized
<b>Length (aa):</b>	212
<b>MW:</b>	24.4 kDa

**Biological Activity:** R-Spondin-2 enhances BMP-2 mediated differentiation of MC3T3-E1 cells.



**AVOID REPEATED FREEZE AND THAW CYCLES!**