

TECHNICAL DATA SHEET

# Recombinant Human R-Spondin 2 (Carrier-free)

Catalog Number: 21-7127

**RPx-Pro™ Recombinant Protein**

PRODUCT INFORMATION

**CONTENTS**

Recombinant Human R-Spondin 2 (Carrier-free)

**DESCRIPTION**

R-Spondin 2 (RSPO2) is a secreted protein belonging to the R-Spondin family of four structurally related Wnt/beta-catenin signaling regulators. All four members contain one thrombospondin-like and two furin-like domains. In adults, R-Spondin 2 is expressed in intestine and lung as well as other organs of endodermal origin. R-Spondins can enhance Wnt/beta-catenin signaling as they compete with the Wnt agonist DKK-1 for binding to Wnt co-receptors LRP6/Kremen. They can also act as a signaling activation ligand on LRP6 and LGR4 to form a cluster with WNT and FZD. The R-Spondins have been demonstrated to bind to LGR-4, LGR-5 and LGR-6 receptors with high affinity.

**MOLECULAR MASS**

Recombinant Human R-Spondin 2 is a 212 amino acid protein of 24.4 kDa, however due to glycosylation it migrates at about 30 kDa under reducing conditions.

**AMINO ACID SEQUENCE**

ASYVSNPICK GCLSCSKDNG CSRCQQLFF FLRREGMRQY GECLHSCPSG YYGHRAPDMN RCARCRIENC DSCFSKDFCT  
KCKVGFYLHR GRCFDECPDG FAPLEETMEC VEGCEVGHWS EWGTCSRNNR TCGFKWGLET RTRQIVKPPV KDTILCPTIA  
ESRRCKMTMR HCPGGK RTPK AKEKRNNKKK RKLIERAQEQ HSVFLATDRA NQ

**SOURCE**

CHO cells

**APPLICATIONS**

Bioassay

**PURITY**

95 %

**STORAGE**

-20°C

**PROTEIN CONTENT**

Verified by UV Spectroscopy and/or SDS-PAGE gel.

**ENDOTOXIN LEVEL**

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

**AUTHENTICITY**

Verified by N-terminal and Mass Spectrometry analyses (when applicable).

**CROSS REACTIVITY**

**BIOACTIVITY**

The expected ED<sub>50</sub> is 0.8-2.0 ug/ml, based on measuring the R-Spondin-2 enhancement of BMP-2-mediated differentiation of MC3T3-E1 cells.

**RESEARCH AREAS**

Cancer, Proliferation, Neurobiology

**RECONSTITUTION**

See Certificate of Analysis (COA) for lot specific reconstitution information.

**REFERENCES**

Jin YR and Yoon JK. 2012. Int J Biochem Cell Biol. 44(12): 2278-2287. Kim KA, Wagle M, Tran K, Zhan X, Dixon MA, Liu S, Gros D, Korver W, Yonkovich S, Tomasevic N, Binnerts M and Abo A. 2008. Mol Biol Cell. 19(6): 2588-2596. Carmon KS, Gong X, Lin Q, Thomas A and Liu Q. 2011. Proc Natl Acad Sci USA. 108(28): 11452-11457. Gong X, Carmon KS, Lin Q, Thomas A, Yi J and Liu Q. 2012. PLoS One. 7(5):e37137. DOI 10.1371/journal.pone.0037137.

Citations are provided as a resource for additional applications that have not been validated by Tonbo Biosciences. Please choose the appropriate format for each application and consult Materials and Methods sections for additional details about the use of any product in these publications.

For Research Use Only.

Not for use in diagnostic or therapeutic procedures. Not for resale. Not for distribution without written consent. Tonbo Biosciences will not be held responsible for patent infringement or other violations that may occur with the use of our products. Tonbo Biosciences, Tonbo Biosciences Logo and all other trademarks are the property of Tonbo Biotechnologies Corporation. © 2013 Tonbo Biosciences.