



## Cultrex® HA-R-Spondin1-Fc 293T Cells

Roof plate-specific Spondin-1 (R-Spondin 1 or RSPO1), also known as CRISTIN3, is a 27 kDa secreted activator protein that belongs to the R-Spondin family. R-Spondins positively regulate Wnt/beta-catenin signaling, most likely by acting as a ligand for LGR4-6 receptors and an inhibitor for ZNRF3. R-Spondin-1 induces proliferation of intestinal crypt epithelial cells, increases intestinal epithelial healing, and supports intestinal epithelial stem cell renewal [1-5].

The 293T cell line is stably transfected to express murine Rspo1 with an N-terminal HA epitope tag and fused to a C-terminal murine IgG2a Fc fragment. This cell line is used to produce either purified Rspo1 or Rspo1 conditioned media. The murine Rspo1 protein has been used extensively in organoid culture to maintain Lgr5+ stem cells, and the FC and HA tags make it easy to purify or characterize.

### REFERENCES:

1. Ootani, A., et al., Sustained in vitro intestinal epithelial culture within a Wnt-dependent stem cell niche. *Nat Med*, 2009. 15(6): p. 701-706.
2. Barker, N., et al., Lgr5+ve Stem Cells Drive Self-Renewal in the Stomach and Build Long-Lived Gastric Units In Vitro. *Cell Stem Cell*, 2010. 6(1): p. 25-36.
3. Sato, T., et al., Single Lgr5 stem cells build crypt-villus structures in vitro without a mesenchymal niche. *Nature*, 2009. 459(7244): p. 262-265.
4. Sato, T. and H. Clevers, Growing Self-Organizing Mini-Guts from a Single Intestinal Stem Cell: Mechanism and Applications. *Science*, 2013. 340(6137): p. 1190-1194.
5. Jung, P., et al., Isolation and in vitro expansion of human colonic stem cells. *Nat Med*, 2011. 17(10): p. 1225-7.

### ORDERING INFORMATION:

Name	Catalog Number	Size	Price
Cultrex® R-spondin1 (Rspo1) Cells	3710-001-K	1x106 (0.5ml)	\$490
Cultrex® Organoid Harvesting Solution	3700-100-01	100 ml	FREE SAMPLE
Cultrex® Reduced Growth Factor Basement Membrane Matrix, Type 2	3533-001-02	1 ml, 2 x 5 ml, 5 ml	FREE SAMPLE
Cultrex® Reduced Growth Factor Basement Membrane Matrix, Type R1	3433-001-R1	1 ml, 5 ml	FREE SAMPLE

### Trevigen, Inc.

8405 Helgerman Court, Gaithersburg, MD 20877 USA

Phone: 1-800-TREVIGEN (1-800-873-8443) • 301-216-2800 • Fax: 301-560-4973 • Email: [info@trevigen.com](mailto:info@trevigen.com) • <http://www.trevigen.com>