

# **Anti-Human LGR5-161Dy**

Catalog: 3161025B Clone: 4D11F8
Package Size: 100 tests Isotype: Rat IgG2b

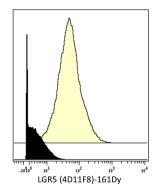
Storage: Store product at 4°C. Do not freeze. Formulation: Antibody stabilizer with 0.05% Sodium Azide

Reactivity: Human

## **Technical Information**

**Validation:** Each lot of conjugated antibody is quality control tested by  $\mathsf{CyTOF}^{\textcircled{R}}$  analysis of stained cells using the appropriate positive and negative cell staining and/or activation controls.

**Recommended Usage:** The suggested use is 1  $\mu$ l for up to 3 X 10  $^6$  live cells in 100  $\mu$ l. It is recommended that the antibody be titrated for optimal performance for each of the desired applications.



Human U-87 MG cells (top) and human Jurkat cells (bottom) were fixed, permeabilized, and stained with 161Dy-anti- LGR5 (4D11F8). Total viable cells are displayed in analysis.

# **Description**

LGR5 (Leucine-rich repeat containing G protein-coupled receptor) is a seven-transmembrane receptor component of the Wnt receptor complex, which specifically acts as a receptor for a family of Wnt pathway agonists called R-spondins. In the mouse antrum, small intestine and stomach Lgr5-positive stem cells give rise to all differentiated cell lineages normally present in a crypt, and at least in mice, Lgr5 has also been shown to lineage-label gastric and intestinal stem cells. LGR5 is likely to be a robust stem cell marker in the human intestine also: in situ hybridization shows localization of LGR5 mRNA to the crypt base mirroring the architecture seen in the mouse. Lgr5+ cells have been shown to lineage-label within mouse small intestinal adenomas, and a considerable proportion of the crypt population expresses Lgr5, suggesting a population of hundreds of potential stem cells in each adenomatous gland. The 4D11F8 monoclonal antibody recognizes an epitope in the center of the leucine-rich repeat (LRR) region of human Lgr5.

#### References

Bandura, D. R., et al. Mass Cytometry: Technique for Real Time Single Cell Multitarget Immunoassay Based on Inductively Coupled Plasma Time-of-Flight Mass Spectrometry. *Analytical Chemistry* 81:6813-6822, 2009.

Ornatsky, O. I., et al. Highly Multiparametric Analysis by Mass Cytometry. J Immunol Methods 361 (1-2):1-20, 2010.

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