

Anti-Lgr5 (GPR49) Antibody, clone 5G10.1 clone 5G10.1, from mouse

Art. ID SAF-MABD148
Unit EA

Description

Leucine-rich repeat-containing G-protein coupled receptor 5 (UniProt O75473, also known as G-protein coupled receptor 49, G-protein coupled receptor 67, G-protein coupled receptor HG38, Orphan G protein-coupled receptor HG38) is encoded by the LGR5 (also known as GPR49, GPR67, GRP49, HG38) gene (Gene ID 8549) in human. Lgr5 is a 7-transmembrane protein related to the receptors for the follicle stimulating hormone (FSH), the luteinizing hormone (LH), and the thyroid-stimulating hormone (TSH). Lgr5 is a Wnt signaling pathway targeted gene expressed in proliferative stem cells in various tissues, including small intestine, colon, stomach, and the hair follicle. The R-spondin (RSPO) family of secreted Wnt signaling agonists are known to bind Lgr5 and the related Lgr4 and Lgr6, and RSPO1 depends on its association with Lgr4, Lgr5, or Lgr6 for its Wnt signaling enhancing effect. Human Lgr5 is synthesized with a propeptide sequence (a.a. 1-21), the removal of which yields the mature 7-transmembrane (a.a. 562-582, 594-614, 639-659, 683-703, 723-743, 768-788, 803-823) G-protein-coupled receptor (GPCR), having its N-terminal end (a.a. 22-561) at the extracellular side and its C-terminal end (a.a. 824-907) at the cytoplasmic side. The N-terminal extracellular region contains a leucine-rich repeat (LRR) N-terminal (LRRNT) domain (a.a. 25-66), followed by 16 LRRs (LRR 1 through LRR 16, a.a. 67-446).