

DESCRIPTION

Source	Chinese Hamster Ovary cell line, CHO-derived		
	Human Lgr6 (Ala25-Ala567) Accession # Q9HBX8	IEGRMD	Human IgG ₁ (Pro100-Lys330)
	N-terminus		C-terminus
N-terminal Sequence Analysis	Ala25		
Structure / Form	Disulfide-linked homodimer		
Predicted Molecular Mass	87 kDa		

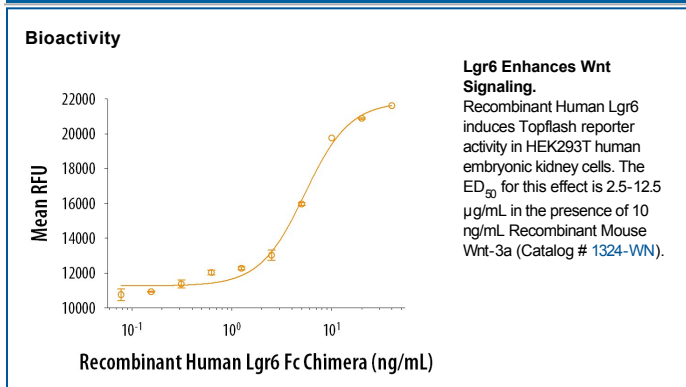
SPECIFICATIONS

SDS-PAGE	90-108 kDa, reducing conditions
Activity	Measured by its ability to induce Topflash reporter activity in HEK293T human embryonic kidney cells. The ED ₅₀ for this effect is 2.5-12.5 µg/mL in the presence of 10 ng/mL Recombinant Mouse Wnt-3a (Catalog # 1324-WN).
Endotoxin Level	<0.10 EU per 1 µg of the protein by the LAL method.
Purity	>80%, by SDS-PAGE with silver staining.
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS. See Certificate of Analysis for details.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 100 µg/mL in PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	<p>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</p> <ul style="list-style-type: none"> • 12 months from date of receipt, -20 to -70 °C as supplied. • 1 month, 2 to 8 °C under sterile conditions after reconstitution. • 3 months, -20 to -70 °C under sterile conditions after reconstitution.

DATA



BACKGROUND

Lgr6 (leucine-rich repeat G protein-coupled receptor 6) is an approximately 100 kDa 7-transmembrane glycoprotein in the Lgr family of cell surface receptors. Lgrs has been identified as a marker for specific types of stem cells in tissues that are subject to constant self-renewal such as skin, gastrointestinal tract, and lungs (1, 2). The 544 amino acid (aa) N-terminal extracellular domain (ECD) of mature human Lgr6 contains 15 LRRs flanked by N-terminal and C-terminal LRR domains. The ECD is followed by a 7-TM region and a 137 aa C-terminal cytoplasmic domain (3). Within the N-terminal ECD, human Lgr6 shares 92% and 93% aa sequence identity with mouse and rat Lgr6, respectively. Alternative splicing generates an additional isoform with a substitution for the LRR N-terminal domain and a deletion of LRR3-6. Lgr6 is expressed on hair follicle stem cells that give rise to sebaceous glands, interfollicular epidermis, and hair follicles (4-6). It is also expressed on alveolar stem cells that differentiate into lung epithelium (7). It is often up-regulated in human gastric cancers (8). Lgr6 binds to R-Spondins 1-4 and can enhance Wnt/beta-Catenin signaling through phosphorylation of the Wnt co-receptor LRP6 (9, 10).

References:

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6. Nath, M. *et al.* (2011) *Cell Tissue Res.* **344**:435.
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8. Steffen, J.S. *et al.* (2012) *Virchows Arch.* **461**:355.
9. Gong, X. *et al.* (2012) *PLoS ONE* **7**:e37137.
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