Data Sheet (Cat.No.TMPY-02264)

TargetMol

LRIG1 Protein, Mouse, Recombinant (His)

General Information

Synonyms:	LIG-1;D6Bwg0781e;leucine-rich repeats and immunoglobulin-like domains 1;Img
Protein Construction:	A DNA sequence encoding the extracellular domain of mouse LRIG1 (NP_032403.2) (Met 1-Thr 794) was expressed, with a polyhistidine tag at the C-terminus. Predicted N terminal: Ala 35
Species:	Mouse
Expression Host:	HEK293 Cells
Accession:	P70193
Molecular Weight:	85 kDa (predicted); 90-100 kDa (reducing condition, due to glycosylation)

QC Testing

Biological Activity:	Activity testing is in progress. It is theoretically active, but we cannot guarantee it. If you require protein activity, we recommend choosing the eukaryotic expression version first.
Purity:	> 95 % as determined by SDS-PAGE
Endotoxin:	< 1.0 EU/μg of the protein as determined by the LAL method.
Formulation:	Lyophilized from a solution filtered through a 0.22 μm filter, containing PBS, pH 7.4. Typically, a mixture containing 5% to 8% trehalose, mannitol, and 0.01% Tween 80 is incorporated as a protective agent before lyophilization.

Preparation and Storage

Reconstitution:

A Certificate of Analysis (CoA) containing reconstitution instructions is included with the products. Please refer to the CoA for detailed information.

Stability & Storage:

It is recommended to store recombinant proteins at -20°C to -80°C for future use. Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

Protein Background

Leucine-rich repeats and immunoglobulin-like domains 1 (LRIG1) is a tumor suppressor and a negative regulator of several receptor tyrosine kinases. Leucine-rich repeats and immunoglobulin-like domains containing protein 1 (LRIG1) is an endogenous feedback regulator of receptor tyrosine kinases (RTKs) and was recently shown to inhibit the growth of different types of malignancies. Leucine-rich repeats and immunoglobulin-like domains 1(LRIG1)is a kind of transmembrane glycoprotein, which is induced by epidermal growth factor (EGF) and develops inhibitory

negative feedback by specific binding with epidermal growth factor receptor (EGFR). LRIG1 expression is broadly decreased in human cancer and breast cancer and low expression of LRIG1 has been linked to decreased relapse-free survival.

Reference

Shattuck DL,et al.(2007) LRIG1 Is a Novel Negative Regulator of the Met Receptor and Opposes Met and Her2 Synergy. Mol Cell Biol. 27 (5): 1934-46.
Ledda F,et al. (2008) Lrig1 is an endogenous inhibitor of Ret receptor tyrosine kinase activation, downstream signaling, and biological responses to GDNF. J Neurosci. 28(1): 39-49.
Hedman H,et al. (2002) Is LRIG1 a tumour suppressor gene at chromosome 3p14.3 Acta Oncol. 41(4): 352-4.

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