Data Sheet (Cat.No.TMPK-01030)

TargetMol

LRRN1 Protein, Mouse, Recombinant (His)

General Information

Synonyms:	Neuronal leucine-rich repeat protein 1;LRN;NLRR1;NLRR-1;FIGLER3;Leucine-rich repeat neuronal protein 1;KIAA1497
Protein Construction:	Ser26-Ala631
Species:	Mouse
Expression Host:	HEK293 Cells
Accession:	Q61809
Molecular Weight:	69.28 kDa (predicted). Due to glycosylation, the protein migrates to 80-90 kDa based on Tris-Bis PAGE result.

QC Testing

Biological Activity:	Activity has not been tested. 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 Tris-Bis PAGE; > 95% as determined by HPLC
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, 8% trehalose is incorporated as a protective agent before lyophilization.

Preparation and Storage

Reconstitution:

Reconstitute the lyophilized protein in distilled water. The product concentration should not be less than 100 μg/ml. Before opening, centrifuge the tube to collect powder at the bottom. After adding the reconstitution buffer, avoid vortexing or pipetting for mixing.

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

Lrrn1 is required for the formation of MHB--loss of function leads to a loss of the morphological constriction and loss of Fgf8. Cells overexpressing Lrrn1 violate the boundary and result in a loss of cell restriction between midbrain and hindbrain compartments. Lrrn1 also regulates the glycosyltransferase Lunatic Fringe, a modulator of Notch signalling, maintaining its expression in midbrain cells which is instrumental in MHB boundary formation.

Reference

Tossell K, et al. Lrrn1 is required for formation of the midbrain-hindbrain boundary and organiser through regulation of affinity differences between midbrain and hindbrain cells in chick. Dev Biol. 2011 Apr 15;352(2):341-52. doi: 10.1016/j.ydbio.2011.02.002. Epub 2011 Feb 18. PMID: 21315708; PMCID: PMC3084456.

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