

LRRTM4 Protein, Mouse, Recombinant (His)

General Information

Synonyms:	leucine rich repeat transmembrane neuronal 4;A230052N11;7530419J18Rik
Protein Construction:	A DNA sequence encoding the mouse Lrrtm4 (NP_848846.3) (Met1-Lys424) was expressed with a polyhistidine tag at the C-terminus. Predicted N terminal: Gln 31
Species:	Mouse
Expression Host:	HEK293 Cells
Accession:	Q80XG9-2
Molecular Weight:	46.4 kDa (predicted)

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:	> 90 % 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 repeat transmembrane neuronal protein 4, also known as LRRTM4, is a single-pass type I membrane protein that belongs to the LRRTM family. LRRTM4 is expressed in the limb mesenchyme, neural tube, caudal mesoderm, and in three distinct regions of the head. LRRTM4 may play a role in the development and maintenance of the vertebrate nervous system. Leucine-rich repeat-containing proteins are involved in protein-protein interactions and they regulate numerous cellular events during nervous system development and disease.

Human and mouse LRRTMs are highly conserved, and orthologous genes exist in other vertebrates but not in invertebrates. LRRTM mRNAs are predominantly expressed in the nervous system and that each LRRTM possesses a specific, partially nonoverlapping expression pattern. The structure and expression profile of LRRTM mRNAs suggest that they may have a role in the development and maintenance of the vertebrate nervous system. All LRRTMs, except LRRTM4, are located in the introns of different alpha-catenin genes, suggesting coevolution of these two gene families.

Reference

- Laurén,J. et al., 2003, Genomics 81 (4):411-21.
Clark HF. et al.,2003, Genome Res. 13: 2265-70.
Haines,BP. et al., 2007, Gene Expr Patterns 7 (1-2): 23-9.

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