Recombinant Mouse LRRN4 His-tag

Catalog Number: 10411-LR

DESCRIPTION

Source	Mouse myeloma cell line, NS0-derived mouse LRRN4 protein Gln22-Ser676, with a C-terminal 6-His tag Accession # P59383.2
N-terminal Sequence Analysis	Gln22 inferred from enzymatic pyroglutamate treatment revealing Ser23
Predicted Molecular Mass	72 kDa

SPECIFICATIONS

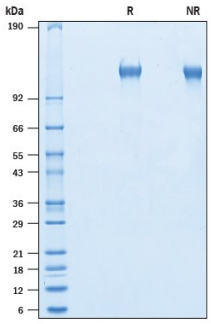
SDS-PAGE	110-130 kDa, under reducing conditions
Activity	Bioassay data are not available.
Endotoxin Level	<0.10 EU per 1 µg of the protein by the LAL method.
Purity	>95%, by SDS-PAGE visualized with Silver Staining and quantitative densitometry by Coomassie® Blue Staining.
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS. See Certificate of Analysis for details.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 500 µg/mL in PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	**Use a manual defrost freezer and avoid repeated freeze-thaw cycles.** • 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

SDS-PAGE



Recombinant Mouse LRRN4 His-tag Protein SDS-PAGE 2 µg/lane of Recombinant Mouse LRRN4 His-tag (Catalog # 10411-LR) was resolved with SDS-PAGE under reducing (R) and non-reducing (NR) conditions and visualized by Coomassie® Blue staining, showing bands at 110-130 kDa.

BACKGROUND

LRRN4 (Leucine-rich repeat neuronal protein 4) is a type I transmembrane protein that is a member of the LRRN family. It is expressed in lung, heart, ovary, and neuronal tissues (1-3). Mature mouse LRRN4 is composed of a 657 amino acid (aa) extracellular domain (ECD) that includes ten LRRs, one LRRCT and a fibronectin type-III like domain, a 21 aa transmembrane segment, and a 36 aa cytoplasmic domain. Within the ECD, mouse LRRN4 shares 66% and 84% aa sequence identity with human and rat LRRN4, respectively. LRRN4-deficient mice show defects in the memory retention, suggesting this protein may play an important role in hippocampus-dependent long-lasting memory (1). In addition, LRRN4 is found in about 8% dorsal root ganglion (DRG) neurons (2). These neurons are small-sized neurons that function as nociceptors. LRRN4 expression was decreased in the DRG by sciatic axotomy suggesting that LRRN4 might function as a synaptic adhesion molecule to maintain nociceptive circuits (2). LRRN4 is also expressed in primary mesothelial cells and may be developed as a maker for detection of mesothelioma antigens (4).

References:

1. Bando, T. *et al.* (2005) Mol. Cell. Biol. **25**:4166.
2. Bando, T. *et al.* (2012) Neurosci. Lett. **531**:24.
3. Bando, T. *et al.* (2013) Neurosci. Lett. **548**:73.
4. Kanamori-Katayama, M. (2011) PloS. One. **6(10)**:e24391.

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