

DESCRIPTION

Source	Chinese Hamster Ovary cell line, CHO-derived human LRRN2 protein Ala19-Gly630, with a C-terminal 6-His tag Accession # O75325
N-terminal Sequence Analysis	Ala19 & Val20
Predicted Molecular Mass	69 kDa

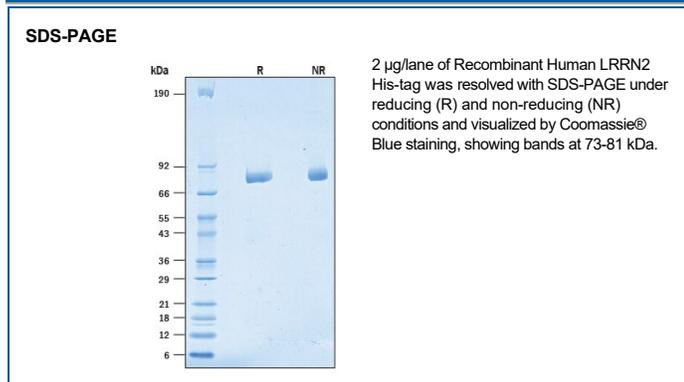
SPECIFICATIONS

SDS-PAGE	73-81 kDa, under reducing conditions
Activity	Measured by its ability to enhance neurite outgrowth of E16-E18 rat embryonic cortical neurons. Recombinant Human LRRN2, immobilized at 2.5 µg/mL on a 96 well plate, is able to significantly enhance neurite outgrowth.
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. <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

Leucine-rich repeat neuronal protein 2 (LRRN2) is a type I transmembrane protein containing leucine-rich repeats (1). Mature human LRRN-2 consists of a 612 amino acid (aa) extracellular domain (ECD), a 21 aa transmembrane segment, and a 62 aa cytoplasmic domain. Within the ECD, human LRRN-2 shares 92% with mouse and rat LRRN-2. LRRN-2 is expressed in neuronal tissue postsynaptic membranes (1, 2). It is involved in the development and maintenance of excitatory synapse in the vertebrate nervous system. LRRN-2 regulates surface expression of AMPA receptors and instructs the development of functional glutamate release sites (1, 2). LRRN-2 is up-regulated after NGF-induced differentiation and down-regulated after NGF depletion-induced apoptosis in mouse superior cervical ganglion cells (2).

References:

1. Lauren, J. *et al.* (2003) *Genomics* **81**:411.
2. Hamano, S. *et al.* (2004) *Int. J. Oncol.* **24**:1457.