

## Product Data Sheet

## LRRTM4 Protein, Human (HEK293, His)

Cat. No.:	HY-P76481
Synonyms:	Leucine-rich repeat transmembrane neuronal protein 4
Species:	Human
Source:	HEK293
Accession:	Q86VH4 (Q31-K424)
Gene ID:	80059
Molecular Weight:	Approximately 65 kDa.

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FROFERIES	
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 μm filtered solution of PBS, pH 7.4. Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconsititution	It is not recommended to reconstitute to a concentration less than 100 $\mu\text{g}/\text{mL}$ in ddH2O.
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

## **DESCRIPTION Background** LRRTM4 protein emerges as a key player in the development and maintenance of the vertebrate nervous system, with a particularly pronounced role in synaptogenesis, specifically influencing excitatory presynaptic differentiation. Functionally associated with the AMPA receptor (AMPAR) complex, LRRTM4 is positioned peripherally within this complex, which consists of an inner core comprising four pore-forming GluA/GRIA proteins and four major auxiliary subunits. LRRTM4 is part of the outer core, interacting directly with GluA/GRIA proteins, and contributes to the intricate network of proteins orchestrating AMPAR complex assembly and function. Understanding LRRTM4's role in the context of excitatory neurotransmission and the regulation of AMPAR complex dynamics holds promise for unraveling the complexities of synaptic connectivity in the nervous system. Further investigation is needed to elucidate the specific mechanisms by which LRRTM4 influences excitatory presynaptic differentiation and contributes to overall neural network development.

Caution: Product has not been fully validated for medical applications. For research use only.

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