Recombinant Human MUSK Kinase Protein (aa 433-783, His &GST Tag)

Catalog Number: PKSH030345

Note: *Centrifuge before opening to ensure complete recovery of vial contents.*

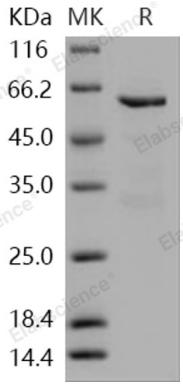
Description

Species	Human
Source	Baculovirus-Insect Cells-derived Human MUSK Kinase protein Arg 433-Val 783, with an N-terminal His & GST
Calculated MW	68.0 kDa
Observed MW	58 kDa
Accession	O15146-2
Bio-activity	Not validated for activity

Properties

Purity	> 90 % as determined by reducing SDS-PAGE.
Concentration	Subject to label value.
Endotoxin	< 1.0 EU per μg of the protein as determined by the LAL method.
Storage	Store at < -20°C, stable for 6 months. Please minimize freeze-thaw cycles.
Shipping	This product is provided as liquid. It is shipped at frozen temperature with blue ice/ gel packs. Upon receipt, store it immediately at < - 20°C.
Formulation	Supplied as sterile solution of 20mM Tris, 500mM NaCl, pH 7.4, 10mM GSH.

Data



> 90 % as determined by reducing SDS-PAGE.

Background

Muscle, skeletal receptor tyrosine-protein kinase, also known as Muscle-specific tyrosine-protein kinase receptor, Muscle-specific kinase receptor, and MUSK, is a single-pass type I membrane protein which belongs to the protein kinase superfamily and tyr protein kinase family. MUSK contains one FZ (frizzled) domain, three Ig-like C2-type (immunoglobulin-like) domains and one protein kinase domain. This protein is a muscle-specific tyrosine kinase receptor and it may play a role in clustering of the acetylcholine receptor in the postsynaptic neuromuscular junction. MUSK expression is increased in muscle cells stimulated with Wnt or at conditions when the Wnt signaling was activated. MUSK is a muscle-specific receptor tyrosine kinase that is activated by agrin. It has a critical role in neuromuscular synapse formation. MUSK is a receptor tyrosine kinase that is a key mediator of agrin's action and is involved in neuromuscular junction (NMJ) organization. Defects in MUSK encoding gene is a cause of autosomal recessive congenital myasthenic syndrome (CMS). Congenital myasthenic syndromes are inherited disorders of neuromuscular transmission that stem from mutations in presynaptic, synaptic, or postsynaptic proteins. MUSK mutations lead to decreased agrin-dependent AChR aggregation, a critical step in the formation of the neuromuscular junction. Mutations in this receptor encoding gene also have been associated with congenital myasthenic syndrome.

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