Recombinant Protein Technical Manual

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

RPES1030

Product Data:

Product SKU: RPES1030

Size: 20µg

Species: Human

Expression host: Baculovirus-Insect Cells

Uniprot: O15146-2

Protein Information:

Molecular Mass:	68 kDa
AP Molecular Mass:	58 kDa
Tag:	N-His & GST
Bio-activity:	
Purity:	> 90 % as determined by reducing SDS-PAGE.
Endotoxin:	< 1.0 EU per µg 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:	Lyophilized from sterile 20mM Tris, 500mM NaCl, pH 7.4, 10mM GSH
Reconstitution:	Please refer to the printed manual for detailed information.
Application:	
Synonyms:	CMS9;FADS

Immunogen Information:

Sequence: Arg 433-Val 783

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.