Recombinant Human MUSK Protein (24-495 aa), His-tagged

Cat. No. MUSK-2372H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human MUSK Protein (24-495 aa) is produced by Yeast expression system. This protein is fused with a 6xHis tag at the N-terminal. Research Area: Signal Transduction. Protein Description: Partial.
Species	Human
Source	Yeast
ProteinLength	24-495 aa
Description	Receptor tyrosine kinase which plays a central role in the formation and the maintenance of the neuromuscular junction (NMJ), the synapse between the motor neuron and the skeletal muscle . Recruitment of AGRIN by LRP4 to the MUSK signaling complex induces phosphorylation and activation of MUSK, the kinase of the complex. The activation of MUSK in myotubes regulates the formation of NMJs through the regulation of different processes including the specific expression of genes in subsynaptic nuclei, the reorganization of the actin cytoskeleton and the clustering of the acetylcholine receptors (AChR) in the postsynaptic mbrane. May regulate AChR phosphorylation and clustering through activation of ABL1 and Src family kinases which in turn regulate MUSK. DVL1 and PAK1 that form a ternary complex with MUSK are also important for MUSK-dependent regulation of AChR clustering. May positively regulate Rho family GTPases through FNTA. Mediates the phosphorylation of FNTA which promotes prenylation, recruitment to mbranes and activation of RAC1 a regulator of the actin cytoskeleton and of gene expression.

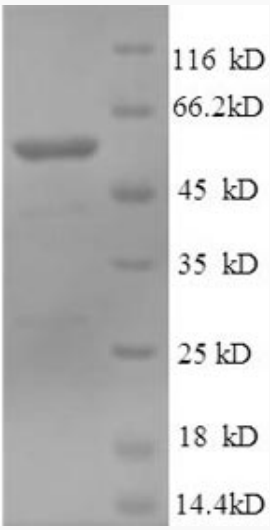
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Email: info@creative-biomart.com Fax: 1-631-938-8127
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	Other effectors of the MUSK signaling include DNAJA3 which functions downstream of MUSK. May also play a role within the central nervous syst by mediating cholinergic responses, synaptic plasticity and mory formation .1 Publication.
Form	Tris-based buffer,50% glycerol
Molecular Mass	53.8 kDa
AA Sequence	LPKAPVITTPLETVDALVEEVATFMCAVESYPQPEISWTRNKILIKLFDTRYSIRENGQ LLTILSVEDSDDGIYCCTANNGVGGAVESCGALQVKMKPKITRPPINVKIIEGLKAVLP CTTMGNPKPSVSWIKGDSPLRENSRIAVLESGSLRIHNVQKEDAGQYRCVAKNSLG TAYSKVVKLEVEEESEPEQDTKVFARILRAPESHNVTFGSFVTLHCTATGIPVPTITWI ENGNAVSSGSIQESVKDRVIDSRLQLFITKPGLYTCIATNKHGEKFSTAKAAATISIAE WREYCLAVKELFCAKEWLVMEEKTHRGLYRSEMHLLSVPECSKLPSMHWDPTACA RLPHLAFPPMTSSKPSVDIPNLPSSSSSSFSVSPTYSMTVIISIMSSFAIFVLLTITTLYC CRRRKQWKNKKRESAAVTLTTLPSELLLDRLHPNPMYQRMPLLLNPKLLSLEYPRN NIEYVRDI
Purity	> 90% as determined by SDS-PAGE.
Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4 centigrade for up to one week.
Storage	The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20 centigrade/-80 centigrade. The shelf life of lyophilized form is 12 months at -20 centigrade/-80 centigrade.
Concentration	A hardcopy of COA will be sent along with the products. Please refer to it for detailed information.

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GENE INFORMATION

Gene Name	MUSK muscle, skeletal, receptor tyrosine kinase [Homo sapiens]
Official Symbol	MUSK
Synonyms	MUSK; muscle-specific kinase receptor; muscle-specific tyrosine-protein kinase receptor; MGC126323; MGC126324;
Gene ID	4593
mRNA Refseq	NM_001166280
Protein Refseq	NP_001159752
MIM	601296
UniProt ID	O15146



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	(Tris-Glycine gel) Discontinuous SDS-PAGE (reduced) with 5% enrichment gel and 15% separation gel.

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