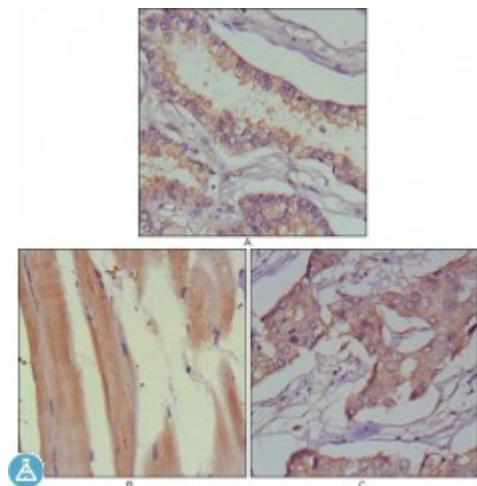


Anti-MuSK antibody



Description	Mouse monoclonal to MuSK.
Model	STJ98259
Host	Mouse
Reactivity	Human
Applications	ELISA, IF, IHC
Immunogen	Purified recombinant extracellular fragment of human MuSK (aa24-209) fused with hIgGfc tag expressed in HEK293 cell line.
Immunogen Region	24-209 aa
Gene ID	4593
Gene Symbol	MUSK
Dilution range	IHC 1:200-1:1000IF 1:200-1:1000ELISA 1:10000
Specificity	MuSK Monoclonal Antibody detects endogenous levels of MuSK protein.
Purification	Affinity purification
Clone ID	10A4
Note	For Research Use Only (RUO).
Protein Name	Muscle, skeletal receptor tyrosine-protein kinase Muscle-specific tyrosine-protein kinase receptor MuSK Muscle-specific kinase receptor
Clonality	Monoclonal
Conjugation	Unconjugated

Isotype	IgG1
Formulation	Ascitic fluid containing 0.03% sodium azide.
Storage Instruction	Store at -20°C, and avoid repeat freeze-thaw cycles.
Database Links	HGNC:7525OMIM:208150
Alternative Names	Muscle, skeletal receptor tyrosine-protein kinase Muscle-specific tyrosine-protein kinase receptor MuSK Muscle-specific kinase receptor
Function	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 membrane. 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 membranes and activation of RAC1 a regulator of the actin cytoskeleton and of gene expression. Other effectors of the MUSK signaling include DNAJA3 which functions downstream of MUSK. May also play a role within the central nervous system by mediating cholinergic responses, synaptic plasticity and memory formation .
Cellular Localization	Cell junction, synapse, postsynaptic cell membrane. Colocalizes with acetylcholine receptors (AChR) to the postsynaptic cell membrane of the neuromuscular junction.
Post-translational Modifications	Ubiquitinated by PDZRN3. Ubiquitination promotes endocytosis and lysosomal degradation . Phosphorylated. Phosphorylation is induced by AGRIN in a LRP4-dependent manner . Autophosphorylated . Autophosphorylation at Tyr-554 is required for interaction with DOK7 which in turn stimulates the phosphorylation and the activation of MUSK . Neddylated.