ARG66273
anti-MUSK phospho (Tyr755) antibody

Package: 100 µl
Store at: -20°C

Summary

Product Description	Rabbit Polyclonal antibody recognizes MUSK phospho (Tyr755)
Tested Reactivity	Hu
Tested Application	WB
Specificity	The antibody detects endogenous levels of MUSK only when phosphorylated at tyrosine 755.
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Target Name	MUSK
Species	Human
Immunogen	KLH-conjugated phospho-specific peptide around Tyr755 (ADY(p)YK) of Human MUSK.
Conjugation	Un-conjugated
Alternate Names	CMS9; FADS; Muscle, skeletal receptor tyrosine-protein kinase; MuSK; Muscle-specific tyrosine-protein kinase receptor; Muscle-specific kinase receptor; EC 2.7.10.1

Application Instructions

Application table

Application	Dilution
WB	1:500 - 1:1000

Application Note: * The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.

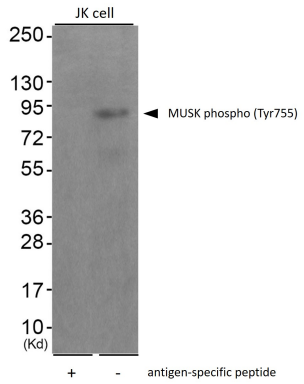
Properties

Form	Liquid
Purification	Affinity purification with phospho-specific peptide and the non-phospho specific antibodies were removed by chromatography using non-phosphopeptide.
Buffer	PBS (pH 7.4), 150mM NaCl, 0.02% Sodium azide and 50% Glycerol.
Preservative	0.02% Sodium azide
Stabilizer	50% Glycerol
Concentration	1 mg/ml
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.
Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

Gene Symbol	MUSK
Gene Full Name	muscle, skeletal, receptor tyrosine kinase
Background	This gene encodes a muscle-specific tyrosine kinase receptor. The encoded protein may play a role in clustering of the acetylcholine receptor in the postsynaptic neuromuscular junction. Mutations in this gene have been associated with congenital myasthenic syndrome. Alternatively spliced transcript variants have been described.[provided by RefSeq, Oct 2009]
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 (By similarity). [UniProt]
Calculated Mw	97 kDa
PTM	Ubiquitinated by PDZRN3. Ubiquitination promotes endocytosis and lysosomal degradation (By similarity). Phosphorylated. Phosphorylation is induced by AGRIN in a LRP4-dependent manner (By similarity). Autophosphorylated (PubMed:25029443). Autophosphorylation at Tyr-554 is required for interaction with DOK7 which in turn stimulates the phosphorylation and the activation of MUSK (By similarity). Neddylated. [UniProt]

Images



ARG66273 anti-MUSK phospho (Tyr755) antibody WB image

Western blot: JK cells treated or untreated with antigen-specific peptide. The blots were stained with ARG66273 anti-MUSK phospho (Tyr755) antibody.