

Datasheet for ABIN4912113

**anti-MUSK antibody****2** Images[Go to Product page](#)

## Overview

|              |  |
|--------------|--|
| Quantity:    | 100 µL   |
| Target:      | MUSK   |
| Reactivity:  | Mouse, Rat   |
| Host:        | Mouse  |
| Clonality:   | Monoclonal   |
| Conjugate:   | This MUSK antibody is un-conjugated  |
| Application: | Western Blotting (WB), Immunohistochemistry (Paraffin-embedded Sections) (IHC (p)) |

## Product Details

|                   |  |
|-------------------|--|
| Immunogen:        | This mouse Musk antibody is generated from a mouse immunized with recombinant protein from mouse Musk. |
| Clone:            | 6D1  |
| Isotype:          | IgG1   |
| Cross-Reactivity: | Mouse, Rat   |
| Purification:     | Purified by Protein G.   |

## Target Details

|                   |   |
|-------------------|---|
| Target:           | MUSK  |
| Alternative Name: | Musk ( <a href="#">MUSK Products</a> )  |
| Background:       | Synonyms: Mlk, Mdk4, Nsk1, Nsk2, Nsk3, Muscle, skeletal receptor tyrosine-protein kinase, |

## Target Details

Muscle-specific tyrosine-protein kinase receptor, MuSK, Muscle-specific kinase receptor

Background: 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.

|           |   |
|-----------|---|
| Gene ID:  | 18198   |
| UniProt:  | <a href="#">Q61006</a>  |
| Pathways: | <a href="#">RTK Signaling</a> , <a href="#">Regulation of Muscle Cell Differentiation</a> , <a href="#">Synaptic Membrane</a> , <a href="#">Regulation of Cell Size</a> , <a href="#">Skeletal Muscle Fiber Development</a> |

## Application Details

|                    |                                  |
|--------------------|----------------------------------|
| Application Notes: | WB 1:300-5000<br>IHC-P 1:200-400 |
| Restrictions:      | For Research Use only            |

## Handling

|                    |   |
|--------------------|---|
| Format:            | Liquid  |
| Concentration:     | 0.5 µg/µL   |
| Buffer:            | 0.01M TBS( pH 7.4) with 1 % BSA, 0.02 % Proclin300 and 50 % Glycerol.               |
| Preservative:      | ProClin   |
| Precaution of Use: | This product contains ProClin: a POISONOUS AND HAZARDOUS SUBSTANCE, which should be |

Handling

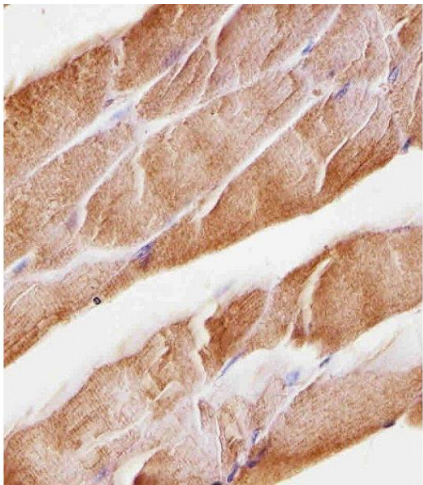
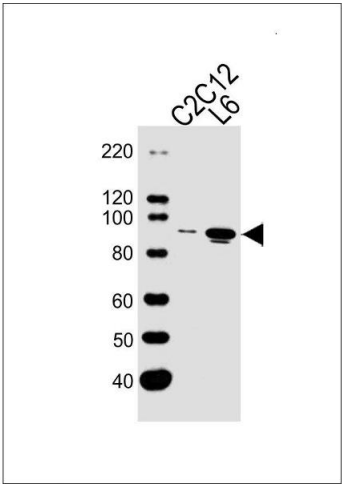
handled by trained staff only.

Storage: 4 °C,-20 °C

Storage Comment: Shipped at 4°C. Store at -20°C for one year. Avoid repeated freeze/thaw cycles.

Expiry Date: 12 months

Images



Western Blotting

**Image 1.** Lane 1: Mouse C2C12 Cell Lysates, Lane 2: Rat L6 Cell Lysates, probed with Musk (1429CT456.173.44) Monoclonal Antibody, unconjugated (bsm-51427M) at 1:1000 overnight at 4°C followed by a conjugated secondary antibody for 60 minutes at 37°C.

Immunohistochemistry (Paraffin-embedded Sections)

**Image 2.** Paraformaldehyde-fixed, paraffin embedded mouse skeletal muscle tissue, Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min, Block endogenous peroxidase by 3% hydrogen peroxide for 15 minutes, Blocking buffer (3% BSA) at room temperature for 30min, Antibody incubation with Musk (1429CT456.173.44) Monoclonal Antibody (bsm-51427M) at 1:25 for 1 hour at 37°C, followed by a conjugated secondary antibody for 20 minutes and DAB staining.