

Recombinant Human MUSK, His-tagged

Cat. No. MUSK-557H Lot. No. (See product label)

SPECIFICATION

Product Overview Recombinant human MUSK was expressed by baculovirus in *Sf9 insect cells* using an N-terminal His tag. MW=38.5kDa.

Species Human

Source Sf9 Cells

Description MUSK is a receptor tyrosine kinase necessary for neuromuscular junction formation. MUSK gene expression is highly regulated during neuromuscular junction and it is involved in intercellular communication present on the surface of cells that are activated by specific protein ligands. MUSK members play a key role in growth and differentiation of those cell types. Agrin signals through MUSK to cluster acetylcholine receptors on the postsynaptic membrane of the neuromuscular junction. DOK7, a MUSK-interacting cytoplasmic protein, is essential for MUSK activation in cultured myotubes. MUSK also plays a critical role in the development of normal blood vessels.

Purity 60%.

Specific Activity 6.9 pmole/min/mg Assay conditions: Add 50 μ reaction mix (MUSK diluted in 1x kinase buffer supplemented with 0.2 mM ATP) to wells coated with substrate. Incubate for 1h. Add Europium-labeled anti p-Tyr antibody and incubate for 1h. Time resolved fluorescence measured at room temperature at $\lambda_{exc}=330\pm 40$ nm and $\lambda_{em}=620\pm 10$ nm.

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Application	Useful for the study of enzyme kinetics, screening inhibitors, and selectivity profiling.
Formulated In	25 mM Tris-HCl, pH 8.0, 100 mM NaCl, 0.05% Tween-20, 20% glycerol, and 1 mM DTT.
Stability	>12 months at -80°C.

GENE INFORMATION

Gene Name	MUSK muscle, skeletal, receptor tyrosine kinase [Homo sapiens]
Synonyms	MUSK; muscle, skeletal, receptor tyrosine kinase; MGC126323; MGC126324; skeletal muscle receptor tyrosine kinase; EC 2.7.10.1; Muscle-specific kinase receptor; Muscle-specific tyrosine protein kinase receptor; protein-tyrosine kinase; receptor tyrosine kinase; Muscle, skeletal receptor tyrosine protein kinase
Gene ID	4593
mRNA Refseq	NM_001166280
Protein Refseq	NP_001159752
MIM	601296
UniProt ID	O15146
Chromosome Location	9q31.3-q32
Function	ATP binding; nucleotide binding; protein binding; receptor activity; transferase activity; transmembrane receptor protein tyrosine kinase activity

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