Recombinant human Muscle, skeletal receptor tyrosine-protein kinase

Catalog No: #AP72692

Package Size: #AP72692-1 20ug #AP72692-2 100ug #AP72692-3 1mg

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Description

Product Name	Recombinant human Muscle, skeletal receptor tyrosine-protein kinase
Brief Description	Recombinant Protein
Host Species	Yeast
Purification	Greater than 90% as determined by SDS-PAGE.
Immunogen Description	Expression Region:24-495aaSequence Info:partial of Isoform 2
Other Names	Muscle-specific tyrosine-protein kinase receptor ;MuSK ;Muscle-specific kinase receptor
Accession No.	O15146
Uniprot	O15146
GeneID	4593;
Calculated MW	53.8 kDa
Tag Info	N-terminal 6xHis-tagged
Target Sequence	LPKAPVITTPLETVDALVEEVATFMCAVESYPQPEISWTRNKILIKLFDTRYSIRENGQLLTILSVEDSDDGIYCCT ANNGVGGAVESCGALQVKMKPKITRPPINVKIIEGLKAVLPCTTMGNPKPSVSWIKGDSPLRENSRIAVLESGS LRIHNVQKEDAGQYRCVAKNSLGTAYSKVVKLEVEEESEPEQDTKVFARILRAPESHNVTFGSFVTLHCTATGI PVPTITWIENGNAVSSGSIQESVKDRVIDSRLQLFITKPGLYTCIATNKHGEKFSTAKAAATISIAEWREYCLAVK ELFCAKEWLVMEEKTHRGLYRSEMHLLSVPECSKLPSMHWDPTACARLPHLAFPPMTSSKPSVDIPNLPSSS SSSFSVSPTYSMTVIISIMSSFAIFVLLTITTLYCCRRRKQWKNKKRESAAVTLTTLPSELLLDRLHPNPMYQRM PLLLNPKLLSLEYPRNNIEYVRDI
Formulation	Tris-based buffer50% glycerol
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°C,-80°C. The shelf life of lyophilized form is 12 months at -20°C,-80°C.Notes:Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.

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 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. 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

References

DNA sequence and analysis of human chromosome 9.Humphray S.J., Oliver K., Hunt A.R., Plumb R.W., Loveland J.E., Howe K.L., Andrews T.D., Searle S., Hunt S.E., Scott C.E., Jones M.C., Ainscough R., Almeida J.P., Ambrose K.D., Ashwell R.I.S., Babbage A.K., Babbage S., Bagguley C.L. , Bailey J., Banerjee R., Barker D.J., Barlow K.F., Bates K., Beasley H., Beasley O., Bird C.P., Bray-Allen S., Brown A.J., Brown J.Y., Burford D., Burrill W., Burton J., Carder C., Carter N.P., Chapman J.C., Chen Y., Clarke G., Clark S.Y., Clee C.M., Clegg S., Collier R.E., Corby N., Crosier M., Cummings A.T., Davies J., Dhami P., Dunn M., Dutta I., Dyer L.W., Earthrowl M.E., Faulkner L., Fleming C.J., Frankish A., Frankland J.A., French L., Fricker D.G., Garner P., Garnett J., Ghori J., Gilbert J.G.R., Glison C., Grafham D.V., Gribble S., Griffiths C., Griffiths-Jones S., Grocock R., Guy J., Hall R.E., Hammond S., Harley J.L., Harrison E.S.I., Hart E.A., Heath P.D., Henderson C.D., Hopkins B.L., Howard P.J., Howden P.J., Huckle E., Johnson C., Johnson D., Joy A.A., Kay M., Keenan S., Kershaw J.K., Kimberley A.M., King A., Knights A., Laird G.K., Langford C., Lawlor S., Leongamornlert D.A., Leversha M., Lloyd C., Lloyd D.M., Lovell J., Martin S., Mashreghi-Mohammadi M., Matthews L., McLaren S., McLay K.E., McMurray A., Milne S., Nickerson T., Nisbett J., Nordsiek G., Pearce A.V., Peck A.I., Porter K.M., Pandian R., Pelan S., Phillimore B., Povey S., Ramsey Y., Rand V., Scharfe M., Sehra H.K., Shownkeen R., Sims S.K., Skuce C.D., Smith M., Steward C.A., Swarbreck D., Sycamore N., Tester J., Thorpe A., Tracey A., Tromans A., Thomas D.W., Wall M., Wallis J.M., West A.P., Whitehead S.L., Willey D.L., Williams S.A., Wilming L., Wray P.W., Young L., Ashurst J.L., Coulson A., Blocker H., Durbin R.M., Sulston J.E., Hubbard T., Jackson M.J., Bentley D.R., Beck S., Rogers J., Dunham I.Nature 429:369-374(2004)Research Topic:Signal Transduction

Note: This product is for in vitro research use only