

Product datasheet for RC204857

SAPK3 (MAPK12) (NM_002969) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	SAPK3 (MAPK12) (NM_002969) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	SAPK3
Synonyms:	ERK-6; ERK3; ERK6; MAPK 12; P38GAMMA; PRKM12; SAPK-3; SAPK3
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC204857 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGGATCGCC**

ATGAGCTCTCCGCCGCCCGCCGAGTGGCTTTTACCGCCAGGAGGTGACCAAGACGGCCTGGGAGGTGC
GCGCCGTGTACCGGGACCTGCAGCCCGTGGGCTCGGGCGCCTACGGCGCGGTGTGCTCGGCCGTGGACGG
CCGCACCGGCGCTAAGGTGGCCATCAAGAAGCTGTATCGGCCCTCCAGTCCGAGCTGTTCCGAAGCGC
GCCTACCGCGAGCTGCGCCTGCTCAAGCACATGCGCCACGAGAAGCTGATCGGGTCTGGACGTATTCA
CTCCTGATGAGACCCTGGATGACTTCACGACTTTTACCTGGTGTGCCGTTTCATGGGCACCGACCTGGG
CAAGCTCATGAAACATGAGAAGCTAGGCGAGGACCGGATCCAGTTCCTCGTGTACCAGATGCTGAAGGGG
CTGAGGTATATCCACGCTGCCGGCATCATCCACAGAGACCTGAAGCCCGCAACCTGGCTGTGAACGAAG
ACTGTGAGCTGAAGATCCTGGACTTCGGCCTGGCCAGGCAGGCAGACAGTGAAGTACTGGGTACGTGGT
GACCCGGTGGTACCGGGCTCCCGAGGTCATCTTGAATTGGATGCGCTACACGCAGACGGTGGACATCTGG
TCCGTGGGCTGCATCATGGCGGAGATGATCACAGGCAAGACGCTGTTCAAGGGCAGCGACCACCTGGACC
AGCTGAAGGAGATCATGAAGGTGACGGGGACGCCTCCGGCTGAGTTTGTGCAGCGGCTGCAGAGCGATGA
GGCCAAGAACTACATGAAGGGCCTCCCCGAATTGGAGAAGAAGGATTTTGCCTCTATCCTGACCAATGCA
AGCCCTCTGGCTGTGAACCTCCTGGAGAAGATGCTGGTGTGGACGCGGAGCAGCGGTGACGGCAGGGC
AGGCGCTGGCCATCCCTACTTCGAGTCCCTGCAGACACGGAAGATGAGCCCCAGGTCCAGAAGTATGA
TGACTCCTTTGACGACGTTGACCGCACACTGGATGAATGGAAGCGTGTACTTACAAAGAGGTGCTCAGC
TTCAAGCCTCCCGCGAGCTGGGGCCAGGGTCTCCAAGGAGACGCCTCTG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC204857 protein sequence
Red=Cloning site Green=Tags(s)

MSSPPPARSGFYRQEVTKTAVEVRAVYRDLQPVGSGAYGAVCSAVDGRGTAKVAIKKLYRPFQSELFKR
 AYRELRLLKMRHENVIGLLDVFTPDETLDDFTDFYL VMPFMGTDLGKLMKHEKLGEDRIQFLVYQMLKG
 LRYIHAAGIIHRDLKPGNLAVNEDCELIKILDFGLARQADSEMTGYVVTRWYRAPEVILNWMRYTQTVDIW
 SVGCIMAEMITGKTLFKGSDHLDQLKEIMKVTGTPPAEFVQRLQSDAKNYMKGLPELEKKDFASILTNA
 SPLAVNLLKMLVLDAEQRTAGEALAHYPFESLHDTDEPQVQKYDDSFDDVDRTLDEWKRVTYKEVLS
 FKPPRQLGARVSKETPL

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6063_d06.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



* The last codon before the Stop codon of the ORF

ACCN: NM_002969

ORF Size: 1101 bp

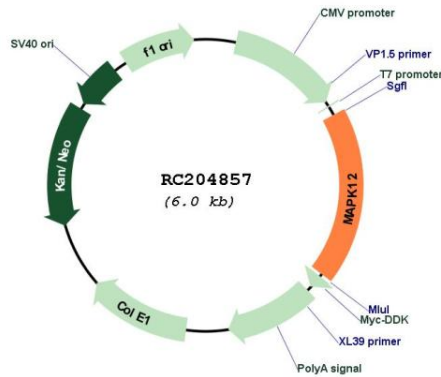
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

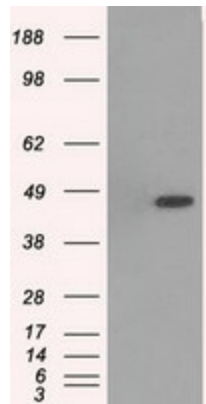
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

Reconstitution Method:	<ol style="list-style-type: none">1. Centrifuge at 5,000xg for 5min.2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.3. Close the tube and incubate for 10 minutes at room temperature.4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.
Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq:	NM_002969.6
RefSeq Size:	1778 bp
RefSeq ORF:	1104 bp
Locus ID:	6300
UniProt ID:	P53778
Cytogenetics:	22q13.33
Domains:	pkinase, TyrKc, S_TKc
Protein Families:	Druggable Genome, Protein Kinase
Protein Pathways:	Amyotrophic lateral sclerosis (ALS), Epithelial cell signaling in Helicobacter pylori infection, Fc epsilon RI signaling pathway, GnRH signaling pathway, Leukocyte transendothelial migration, MAPK signaling pathway, Neurotrophin signaling pathway, NOD-like receptor signaling pathway, Oocyte meiosis, Progesterone-mediated oocyte maturation, RIG-I-like receptor signaling pathway, T cell receptor signaling pathway, Toll-like receptor signaling pathway, VEGF signaling pathway
MW:	41.9 kDa
Gene Summary:	Activation of members of the mitogen-activated protein kinase family is a major mechanism for transduction of extracellular signals. Stress-activated protein kinases are one subclass of MAP kinases. The protein encoded by this gene functions as a signal transducer during differentiation of myoblasts to myotubes. [provided by RefSeq, Jul 2008]

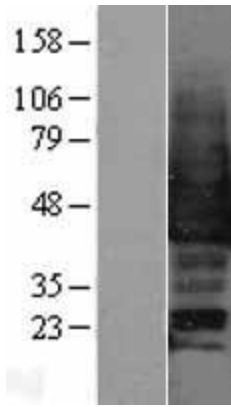
Product images:



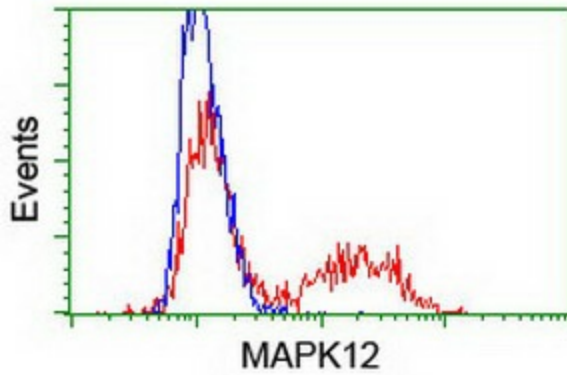
Circular map for RC204857



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY MAPK12 (Cat# RC204857, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-MAPK12 (Cat# [TA500500]). Positive lysates [LY401039] (100ug) and [LC401039] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY401039]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC204857 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



HEK293T cells transfected with either RC204857 overexpress plasmid (Red) or empty vector control plasmid (Blue) were immunostained by anti-MAPK12 antibody ([TA500500]), and then analyzed by flow cytometry.