

Product datasheet for SC323663

OriGene Technologies, Inc.

9620 Medical Center Drive, Ste 200 Rockville, MD 20850, US Phone: +1-888-267-4436 https://www.origene.com techsupport@origene.com EU: info-de@origene.com CN: techsupport@origene.cn

SAPK3 (MAPK12) (NM_002969) Human Untagged Clone

Product data:

Product Type: Expression Plasmids

Product Name: SAPK3 (MAPK12) (NM_002969) Human Untagged Clone

Tag: Tag Free Symbol: SAPK3

Synonyms: ERK-6; ERK3; ERK6; MAPK 12; P38GAMMA; PRKM12; SAPK-3; SAPK3

Mammalian Cell

Selection:

None

Vector: pCMV6-XL4

E. coli Selection: Ampicillin (100 ug/mL)

Fully Sequenced ORF: >NCBI ORF sequence for NM_002969, the custom clone sequence may differ by one or more

nucleotides

ATGAGCTCTCCGCCGCCCGCCGCAGTGGCTTTTACCGCCAGGAGGTGACCAAGACGGCCTGGGAGGTGC GCGCCGTGTACCGGGACCTGCAGCCCGTGGGCTCGGGCGCCTACGGCGCGGTGTGCTCGGCCGTGGACGG CCGCACCGGCGCTAAGGTGGCCATCAAGAAGCTGTATCGGCCCTTCCAGTCCGAGCTGTTCGCCAAGCGC GCCTACCGCGAGCTGCGCCTGCTCAAGCACATGCGCCACGAGAACGTGATCGGGCTGCTGGACGTATTCA CTCCTGATGAGACCCTGGATGACTTCACGGACTTTTACCTGGTGATGCCGTTCATGGGCACCGACCTGGG CAAGCTCATGAAACATGAGAAGCTAGGCGAGGACCGGATCCAGTTCCTCGTGTACCAGATGCTGAAGGGG CTGAGGTATATCCACGCTGCCGGCATCATCCACAGAGACCTGAAGCCCGGCAACCTGGCTGTGAACGAAG GACCCGGTGGTACCGGGCTCCCGAGGTCATCTTGAATTGGATGCGCTACACGCAGACGGTGGACATCTGG TCTGTGGGCTGCATCATGGCGGAGATGATCACAGGCAAGACGCTGTTCAAGGGCAGCGACCACCTGGACC AGCTGAAGGAGATCATGAAGGTGACGGGGACGCCTCCGGCTGAGTTTGTGCAGCGGCTGCAGAGCGATGA GGCCAAGAACTACATGAAGGGCCTCCCCGAATTGGAGAAGAAGGATTTTGCCTCTATCCTGACCAATGCA AGCCCTCTGGCTGTGAACCTCCTGGAGAAGATGCTGGTGCTGGACGCGGAGCAGCGGGTGACGGCAGGCG AGGCGCTGGCCCATCCCTACTTCGAGTCCCTGCACGACACGGAAGATGAGCCCCAGGTCCAGAAGTATGA TTCAAGCCTCCCGGCAGCTGGGGGCCAGGGTCTCCAAGGAGACGCCTCTGTGA

5' Read Nucleotide Sequence: >OriGene 5' read for mutant NM_002969 unedited

CACCGAGGGACCCCAGTCCCCGGTCGTGGGGGCACCAACTAT





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Kinase Domain Sequence:

>SC323663 kinase domain raw sequence. By performing <u>BLASTX</u> analysis with this sequence against NCBI reference protein database, you can confirm the presence of the kinase-

deficient mutation

Restriction Sites: Please inquire
ACCN: NM_002969
Insert Size: 2040 bp

OTI Disclaimer: Our molecular clone sequence data has been matched to the reference identifier above as a

point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative

RNA splicing form or single nucleotide polymorphism (SNP).

OTI Annotation: This kinase-deficient mutant clone was generated by created by site-directed mutagenesis

from the corresponding wild-type clone. See details in "Application of active and kinase-deficient kinome collection for identification of kinases regulating hedgehog signaling." <u>Cell.</u>

2008 May p536-548.

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: 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.

RefSeq: <u>NM 002969.3, NP 002960.2</u>

 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

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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

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]

Transcript Variant: This variant (1) represents the longer transcript and encodes the longer isoform (1).