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Protein Sequence:

>RC215441 representing NM_033141
 Red=Cloning site Green=Tags(s)

MEPSRALLGLASAAAAAPPGEDGAGAGAEEEEEEEEEAAAAVGPGLGCDAPLPYWTAVFEYEAAGEDE
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 TPTHVTLTTPSQSSHRTPSDGALKPETLLASRSPSSNGLSPSPGAMLKTSPSRDPGEFFRLLPDPNV
 VFPPTPRRWNTQQDSTLERPKTLEFLPRRPSANRQLDPWWFVSPSHARSTSPANSSTETPSNLDSCF
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TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk8011_f01.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_033141

ORF Size: 3354 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:
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_033141.4](#)

RefSeq Size: 5602 bp

RefSeq ORF: 3357 bp

Locus ID: 4293

UniProt ID: [P80192](#)

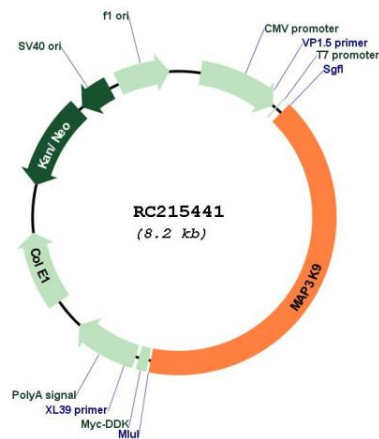
Cytogenetics: 14q24.2

Protein Families: Druggable Genome, Protein Kinase

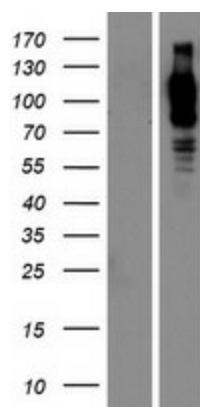
MW: 123.2 kDa

Gene Summary: Serine/threonine kinase which acts as an essential component of the MAP kinase signal transduction pathway. Plays an important role in the cascades of cellular responses evoked by changes in the environment. Once activated, acts as an upstream activator of the MKK/JNK signal transduction cascade through the phosphorylation of MAP2K4/MKK4 and MAP2K7/MKK7 which in turn activate the JNKs. The MKK/JNK signaling pathway regulates stress response via activator protein-1 (JUN) and GATA4 transcription factors. Plays also a role in mitochondrial death signaling pathway, including the release cytochrome c, leading to apoptosis.[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for RC215441



Western blot validation of overexpression lysate (Cat# [LY409706]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC215441 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).