

## Product datasheet for **RC222925**

### **JNK1 (MAPK8) (NM\_139049) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	JNK1 (MAPK8) (NM_139049) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	JNK1
Synonyms:	JNK; JNK-46; JNK1; JNK1A2; JNK21B1/2; PRKM8; SAPK1; SAPK1c
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>RC222925 representing NM\_139049  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGAGCAGAAGCAAGCGTGACAACAATTTTTATAGTGTAGAGATTGGAGATTCTACATTCACAGTCTGA  
 AACGATATCAGAATTTAAACCTATAGGCTCAGGAGCTCAAGGAATAGTATGCGCAGCTTATGATGCCAT  
 TCTTGAAGAAATGTTGCAATCAAGAAGCTAAGCCGACCATTTCAAGATCAGACTCATGCCAAGCGGGCC  
 TACAGAGAGCTAGTTCTTATGAAATGTGTTAATCACAAAATATAATTGGCCTTTTGAATGTTTTACAC  
 CACAGAAATCCCTAGAAGAATTTCAAGATGTTTACATAGTCATGGAGCTCATGGATGCAAAATCTTTGCCA  
 AGTGATTCAGATGGAGCTAGATCATGAAAGAATGTCTACCTTCTATCAGATGCTGTGTGAATCAAG  
 CACCTTCATTCTGCTGGAATTATTCATCGGGACTTAAAGCCAGTAATATAGTAGTAAAACTGATTGCA  
 CTTTGAAGATTCTTGACTTCGGTCTGGCCAGGACTGCAGGAACGAGTTTTATGATGACGCCTTATGTAGT  
 GACTCGCTACTACAGAGCACCCGAGTCACTCTTGGCATGGGCTACAAGGAAAACGTGGATTTATGGTCT  
 GTGGGGTGCAATTATGGGAGAAATGGTTTGCCACAAAATCCTCTTTCCAGGAAGGGACTATATTGATCAGT  
 GGAATAAAGTTATTGAACAGCTTGAACACCATGTCTGAATTCATGAAGAACTGCAACCAACAGTAAG  
 GACTTACGTTGAAAACAGACCTAAATATGCTGGATATAGCTTTGAGAACTCTTCCCTGATGTCCTTTTC  
 CCAGCTGACTCAGAACACAACAACTTAAAGCCAGTCAGGCAAGGGATTGTTATCCAAAATGCTGGTAA  
 TAGATGCATCTAAAAGGATCTCTGTAGATGAAGCTCTCCAACACCCGTACATCAATGTCTGGTATGATCC  
 TTCTGAAGCAGAAGCTCCACCACCAAGATCCCTGACAAGCAGTTAGATGAAAGGGAACACAAATAGAA  
 GAGTGGAAAGAATTGATATATAAGGAAGTTATGGACTTGGAGGAGAGAACCAAGAATGGAGTTATACGGG  
 GGCAGCCCTCTCCTTTAGGTGCAGCAGTATCAATGGCTCTCAGCATCCATCATCATCGTCTGTCAA  
 TGATGTGCTTCAATGTCAACAGATCCGACTTTGGCCTCTGATACAGACAGCAGTCTAGAAGCAGCAGCT  
 GGGCCTCTGGGCTGCTGTAGA

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC222925 representing NM\_139049  
 Red=Cloning site Green=Tags(s)

MSRSKRDNNFYSVEIGDSTFTVLKRYQNLKPIGSGAQGIVCAAYDAILERNVAIKKLSRPFQNTAKRA  
 YRELVLMKCVNHKNIIGLLNVFTPQKSLLEEFQDVYIVMELMDANLCQVIQMELDHERMSYLLYQMLCGIK  
 HLHSAGIIHRDLKPSNIVVKSCTLKILDFGLARTAGTSFMMPYVYVTRYRAPEVILGMGYKENVDLWS  
 VGCIMGEMVCHKILFPGRDYIDQWNVIEQLGTPCFMFKLQPTVRYVENRPKYAGYSFEKLPDVLFP  
 PADSEHNKLGASQARDLLSKMLVIDASKRISVDEALQHPYINVWYDPSEAEAPPPKIPDKQLDEREHTIE  
 EWKELIYKEVMDLEERTKNGVIRGQPSPLGAAVINGSQHPSSSSVNDVSSMSTDPPLASDTSSELEAAA  
 GPLGCCR

**TR**TRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:**

[https://cdn.origene.com/chromatograms/mk6705\\_h06.zip](https://cdn.origene.com/chromatograms/mk6705_h06.zip)

**Restriction Sites:**

Sgfl-Mlul

**Cloning Scheme:**


**ACCN:** NM\_139049

**ORF Size:** 1281 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.

**RefSeq:** [NM\\_139049.4](#)

**RefSeq Size:** 1412 bp

**RefSeq ORF:** 1284 bp

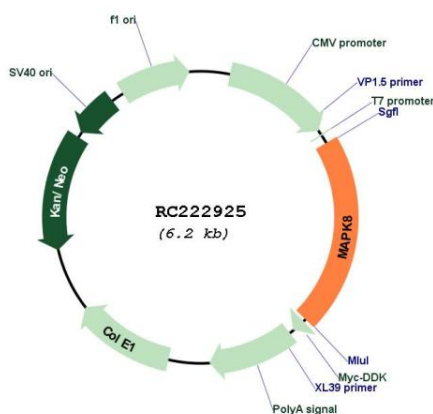
**Locus ID:** 5599

**UniProt ID:** [P45983](#)

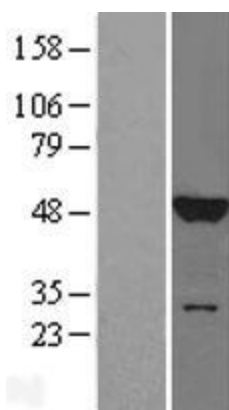
**Cytogenetics:** 10q11.22

<b>Domains:</b>	pkinese, TyrKc, S_TKc
<b>Protein Families:</b>	Druggable Genome, ES Cell Differentiation/IPS, Protein Kinase
<b>Protein Pathways:</b>	Adipocytokine signaling pathway, Colorectal cancer, Epithelial cell signaling in Helicobacter pylori infection, ErbB signaling pathway, Fc epsilon RI signaling pathway, Focal adhesion, GnRH signaling pathway, Insulin signaling pathway, MAPK signaling pathway, Neurotrophin signaling pathway, NOD-like receptor signaling pathway, Pancreatic cancer, Pathways in cancer, Progesterone-mediated oocyte maturation, RIG-I-like receptor signaling pathway, Toll-like receptor signaling pathway, Type II diabetes mellitus, Wnt signaling pathway
<b>MW:</b>	48.1 kDa
<b>Gene Summary:</b>	The protein encoded by this gene is a member of the MAP kinase family. MAP kinases act as an integration point for multiple biochemical signals, and are involved in a wide variety of cellular processes such as proliferation, differentiation, transcription regulation and development. This kinase is activated by various cell stimuli, and targets specific transcription factors, and thus mediates immediate-early gene expression in response to cell stimuli. The activation of this kinase by tumor-necrosis factor alpha (TNF-alpha) is found to be required for TNF-alpha induced apoptosis. This kinase is also involved in UV radiation induced apoptosis, which is thought to be related to cytochrom c-mediated cell death pathway. Studies of the mouse counterpart of this gene suggested that this kinase play a key role in T cell proliferation, apoptosis and differentiation. Several alternatively spliced transcript variants encoding distinct isoforms have been reported. [provided by RefSeq, Apr 2016]

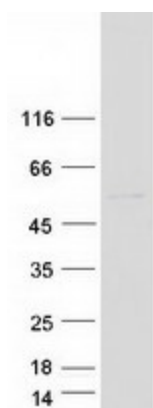
### Product images:



Circular map for RC222925



Western blot validation of overexpression lysate (Cat# [LY408403]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC222925 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified MAPK8 protein (Cat# [TP322925]). The protein was produced from HEK293T cells transfected with MAPK8 cDNA clone (Cat# RC222925) using MegaTran 2.0 (Cat# [TT210002]).