

Product datasheet for **RC402550**

ZAP70 (NM_001079) Human Mutant ORF Clone

Product data:

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|---------------------------|---|
| Product Type: | Mutant ORF Clones |
| Product Name: | ZAP70 (NM_001079) Human Mutant ORF Clone |
| Mutation Description: | M572L |
| Affected Codon#: | 572 |
| Affected NT#: | 1714 |
| Nucleotide Mutation: | ZAP70 Mutant (M572L), Myc-DDK-tagged ORF clone of Homo sapiens zeta-chain (TCR) associated protein kinase 70kDa (ZAP70), transcript variant 1 as transfection-ready DNA |
| Effect: | CD8 defiieny |
| Symbol: | ZAP70 |
| Synonyms: | ADMIO2; IMD48; SRK; STCD; STD; TZK; ZAP-70 |
| E. coli Selection: | Kanamycin (25 ug/mL) |
| Mammalian Cell Selection: | Neomycin |
| Vector: | pCMV6-Entry (PS100001) |
| Tag: | Myc-DDK |
| ACCN: | NM_001079 |
| ORF Size: | 1857 bp |
| Restriction Sites: | Sgfl-RsrII |



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ORF Nucleotide Sequence:

>RC402550 representing NM_001079
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGCCAGACCCCGCGGCACCTGCCCTTCTTCTACGGCAGCATCTCGCGTGCCGAGGCCGAGGAGCACC
 TGAAGCTGGCGGCATGGCGGACGGGCTTCTCTGCTGCGCCAGTGCCTGCGCTCGCTGGCGGCTATGT
 GCTGTCGCTCGTGACAGATGTGCGCTTCCACCCTTCCCATCGAGCGCCAGCTCAACGGCACCTACGCC
 ATTGCCGGCGCAAAGCGCACTGTGGACCGGCAGAGCTCTGCGAGTTCTACTCGCGGACCCCGACGGGC
 TGCCCTGCAACCTGCGCAAGCGGTGCAACCGGCCGTCGGGCTCGAGCCGAGCCGGGGTCTTCGACTG
 CCTGCGAGAGCCATGGTGCCTGACTACGTGCGCCAGACGTGGAAGCTGGAGGGCGAGGCCCTGGAGCAG
 GCCATCATCAGCCAGGCCCGCAGGTGGAGAAGCTCATTGCTACGACGGCCACGAGCGGATGCCCTGGT
 ACCACAGCAGCCTGACGCGTGAGGAGGCCGAGCGCAAACCTTACTCTGGGGCGCAGACCAGGCAAGTT
 CCTGCTGAGGCCGCGGAAGGAGCAGGGCACATACGCCCTGCCCTCATCTATGGGAAGACGGTGTACCAC
 TACCTCATCAGCCAAGACAAGCGGGCAAGTACTGCATTCGCCGAGGGCACCAAGTTTGACACGCTCTGGC
 AGCTGGTGGAGTATCTGAAGCTGAAGCGGACGGGCTCATCTACTGCCTGAAGGAGGCCCTGCCCCAACAG
 CAGTGCCAGCAACGCCTCAGGGGCTGCTGCTCCACACTCCCAGCCACCCATCCACGTTGACTCATCT
 CAGAGACGAATCGACACCCTCAACTCAGATGGATACACCCTGAGCCAGCACGCATAACGTCCCCAGACA
 AACCGCGGCCGATGCCCATGGACACGAGCGTGTATGAGAGCCCTACAGCGACCCAGAGGAGCTCAAGGA
 CAAGAAGCTCTTCTGAAGCGGATAACCTCCTCATAGCTGACATTGAACTTGGCTGCGGCAACTTTGGC
 TCAGTGGCCAGGGCGTGTACCGCATGCGCAAGAAGCAGATCGACGTGGCCATCAAGGTGCTGAAGCAGG
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 CATCGTGGGCTCATTGGCGTCTGCCAGGCCGAGGCCCTCATGCTGGTATGGAGATGGCTGGGGCGGG
 CCGCTGCAACAAGTTCTGGTTCGCAAGAGGGAGGAGATCCCTGTGAGCAATGTGGCCGAGCTGCTGCACC
 AGGTGTCCATGGGGATGAAGTACCTGGAGGAGAAGAACTTTGTGCACCGTGACCTGGCGGCCGCAACGT
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 AGCTACTACACTGCCGCTCAGCAGGGAAGTGGCCGCTCAAGTGGTACGCACCCGAATGCATCAACTTCC
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 GAAGCCCTACAAGAAGATGAAAGGGCCGAGGTATGGCTTCATCGAGCAGGGCAAGCGGATGGAGTGC
 CCACCAGAGTGTCCACCCGAAGTACGCACTTTGAGTACTGCTGGATCTACAAGTGGGAGGATCGCC
 CCGACTTCTGACCGTGGAGCAGCGCATGCGAGCCTGTTACTACAGCCTGGCCAGCAAGGTGGAAGGGCC
 CCCAGGCAGCACAGAAGGCTGAGGCTGCCTGTGCC

AG**CGGACCG**ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCC
 TGGATTACAAGGATGACGACGA TAAGGTTTAA

Protein Sequence:

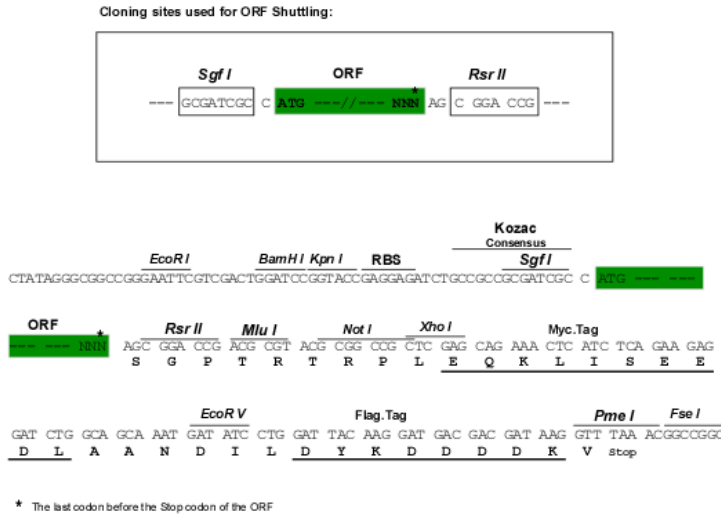
>RC402550 representing NM_001079
 Red=Cloning site Green=Tags(s)

MPDPA AHL PFFYGSISR AEAEHLKLAGMADGLFLLRQCLRSLGGYVLSLVHDVRFHHPPIERQLNGTYA
 IAGGKAHCGPAELCEFYSRDPDGLPCNLRKPCNRPSGLEPQPGVDFCLRDAMVRDYVRQTWKLEGEALEQ
 AIISQAPQVEKLIATTAHERMPWYHSSLTREEAERKLYSGAQTGDKFLLRPRKEQGTYSLSLIYGKTVYH
 YLISQDKAGKYCIPEGTKFDTLWQLVEYLKADGLIYCLKEACPNSSASNASGAAAPTLP AHPSTLTHP
 QRRIDLNSDGYTPEPARITSPDKPRPMPMDTSVYESPYSPEELKDKKLF LKRDNLLIADIELGCGNFG
 SVRQGVYRMRKQIDVAIKVLKQTEKADTEEMMREAQIMHQLDNPYIVRLIGVCQAEALMLVMEMAGGG
 PLHKFLVGKREEIPVSNVAEL LHQVSMGMKYLEEKNFVHRDLAARNVLLVNRHYAKISDFGLSKALGADD
 SYYTARSAGKWPLKWYAP ECFINFRKFSRSRSDVWSYGVTMWEALSYGQKPYKMKGPEVMAFIEQGRMEC
 PPECPPELYALLSDCWIYK WEDRPDFLTVEQMRACYYS LASKVEGPPGSTQKAEAAACA

SGP**TRRRLEQKLI**SEEDLAANDILDYKDDDDKV

Restriction Sites: SgfI-RsrII

Cloning Scheme:



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).

RefSeq:

[NP_001070](#)

RefSeq Size:

1857 bp

RefSeq ORF:

1860 bp

Locus ID:

7535

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|--------------------------|--|
| Cytogenetics: | 2q11.2 |
| Protein Families: | Druggable Genome, Protein Kinase |
| Protein Pathways: | Natural killer cell mediated cytotoxicity, Primary immunodeficiency, T cell receptor signaling pathway |
| MW: | 68.1 kDa |
| Gene Summary: | <p>This gene encodes an enzyme belonging to the protein tyrosine kinase family, and it plays a role in T-cell development and lymphocyte activation. This enzyme, which is phosphorylated on tyrosine residues upon T-cell antigen receptor (TCR) stimulation, functions in the initial step of TCR-mediated signal transduction in combination with the Src family kinases, Lck and Fyn. This enzyme is also essential for thymocyte development. Mutations in this gene cause selective T-cell defect, a severe combined immunodeficiency disease characterized by a selective absence of CD8-positive T-cells. Two transcript variants that encode different isoforms have been found for this gene. [provided by RefSeq, Jul 2008]</p> |