

Product datasheet for RC217928

JAK3 (NM_000215) Human Tagged ORF Clone

Product data:

| | |
|---------------------------|---|
| Product Type: | Expression Plasmids |
| Product Name: | JAK3 (NM_000215) Human Tagged ORF Clone |
| Tag: | Myc-DDK |
| Symbol: | JAK3 |
| Synonyms: | JAK-3; JAK3_HUMAN; JAKL; L-JAK; LJAK |
| Mammalian Cell Selection: | Neomycin |
| Vector: | pCMV6-Entry (PS100001) |
| E. coli Selection: | Kanamycin (25 ug/mL) |
| ORF Nucleotide Sequence: | >RC217928 representing NM_000215 Red=Cloning site Blue=ORF Green=Tags(s) |

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGCACCTCCAAGTGAAGAGACGCCCTGATCCCTCAGCGTTCATGCAGCCTCTTGCCACGGAGGCTG
GTGCCCTGCATGTGCTGCTGCCGCTCGGGGCCCGGGCCCCCAGCGCCTATCTTTCTCTTTGGGGA
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TTTGCTCTGGCCACGGAGGACCTGTCTGCTGGTTCCTCCCGAGCCACATCTTCTCCGTGGAGGATGCCA
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CACCGCAGTGACCTGGTGTGAGTGGCGCCTCCCCGTGGGCCTCAGTCTCAAGGAGCAGGGTGTGTCTCA
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TGTGAGTACAAGGCTGCCTACCCCAAGCCTGCGCGACCTGATCCAGGGCCTGAGCTTCGTGACGCGG
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TCATGGCCAAGTACATCATGGACCTGGAGCGGCTGGATCCAGCCGGGCGCCGAGACCTTCCACGTGGG
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GGTCACAGCCACCCACATCATCCTTGGTTCAGCCCCAATCCCAATACCAGCTGAGTCAGATGACATTTCC
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ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
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Protein Sequence: >RC217928 representing NM_000215
Red=Cloning site Green=Tags(s)

MAPPSEETPLIPQRSCSLLSTEAGALHVLLPARGPGPPQRLSFSFGDHLAEDLCVQAAKASGILPVYHSL
 FALATEDLSCWFPPSHIFSVEDASTQVLLYRIRFYFPNWFLEKCHRFGRLRKDLASAILDLPVLEHLFAQ
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 RRIIRRTVRRALRRVAACQADRHSLMAKYIMDLERLDPAGAAETFHVGLPGALGGHDGLGLLRVAGDGGIA
 WTQGEQEVLPFCDFPEIVDISIKQAPRVGPAGEHRLVTVTRTDNQILEAEFPLPEALSFVALVDGYFR
 LTTDSQHFFCKEVAPRLLLEEVAEQCHGPITLDFAINKLKTGGSRPGSYVLRSPQDFDSFLLTVCVQNP
 LGPDYKGC LIRRSPTGTFLLVGLSRPHSSLRELLATCWDGGLHVDGVAVTLTSCCIPRPKEKSNLIVVQR
 GHSPPTSSLVQPQSQYQLSQMTFHKIPADSLEWHENLGHGSFTKIYRGRHEVVDGEARKTEVLLKVM DA
 KHKNCMESFLEAASLMSQVSYRHLVLLHGVCMAGDSTMVQEFVHLGAIDMYLRKRGHLPASWKLQVVKQ
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 TLSLEADKWGFGATVWEVFSVGTMPISALDPAKKLQFYEDRQQLPAPKWTELALLIQQCMAYEPVQRPSF
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 YDPLGDNTGALVAVKQLQHSQPDQQRDFQREIQILKALHSDFIVKYRGSYVGPGRQLRLVMEYLPSCGL
 RDFLQRHRARLDASRLLLYSSQICKGMEYLGSRRCVHRDLAARNILVESEAHVKIADFGLAKLLPLDKDY
 YVREPGQSPIFWYAPESLSDNIFSRQSDVWSFGVVLVELFTYCDKSCSPSAEFLRMMGCERDVPALCRL
 LELLEEGQLPAPPACPAEVELMKLWCWAPSPQDRPSFSALGPQLDMLWSGSRGCETHAFTAHPGKHHS
 LSFS

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6282_a09.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_000215

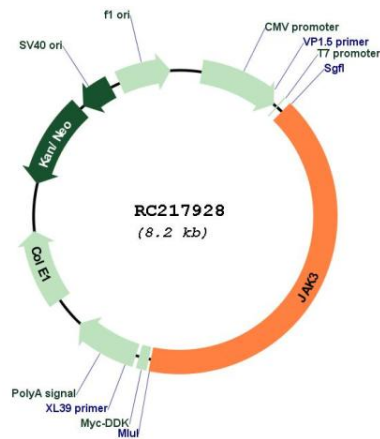
ORF Size: 3372 bp

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|-------------------------------|---|
| OTI Disclaimer: | Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery. |
| | 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_000215.4 |
| RefSeq Size: | 4025 bp |
| RefSeq ORF: | 3375 bp |
| Locus ID: | 3718 |
| UniProt ID: | P52333 |
| Cytogenetics: | 19p13.11 |
| Domains: | B41, pkinase, SH2, TyrKc, S_TKc |
| Protein Families: | Druggable Genome, Protein Kinase |
| Protein Pathways: | Chemokine signaling pathway, Jak-STAT signaling pathway, Primary immunodeficiency |
| MW: | 124.9 kDa |

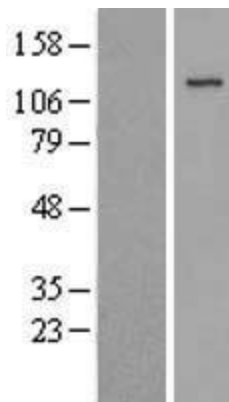
Gene Summary:

The protein encoded by this gene is a member of the Janus kinase (JAK) family of tyrosine kinases involved in cytokine receptor-mediated intracellular signal transduction. It is predominantly expressed in immune cells and transduces a signal in response to its activation via tyrosine phosphorylation by interleukin receptors. Mutations in this gene are associated with autosomal SCID (severe combined immunodeficiency disease). [provided by RefSeq, Jul 2008]

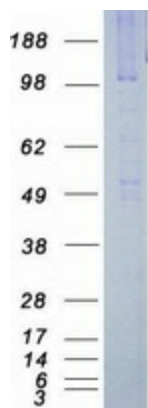
Product images:



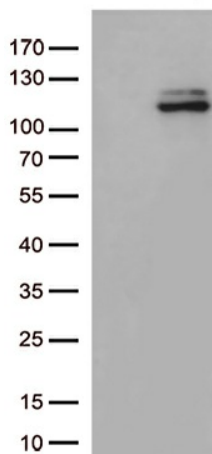
Circular map for RC217928



Western blot validation of overexpression lysate (Cat# [LY424859]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC217928 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified JAK3 protein (Cat# [TP317928]). The protein was produced from HEK293T cells transfected with JAK3 cDNA clone (Cat# RC217928) using MegaTran 2.0 (Cat# [TT210002]).



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY JAK3 (Cat# RC217928, 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-JAK3 (Cat# [TA812875]). Positive lysates [LY424859] (100ug) and [LC424859] (20ug) can be purchased separately from OriGene.