

Product datasheet for **SC214337**

JAK2 (NM_004972) Human 3' UTR Clone

Product data:

Product Type:	3' UTR Clones
Product Name:	JAK2 (NM_004972) Human 3' UTR Clone
Symbol:	JAK2
Synonyms:	JTK10
Mammalian Cell Selection:	Neomycin
Vector:	pMirTarget (PS100062)
ACCN:	NM_004972
Insert Size:	2000 bp



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Insert Sequence:

>SC214337 3'UTR clone of NM_004972

The sequence shown below is from the reference sequence of NM_004972. The complete sequence of this clone may contain minor differences, such as SNPs.

Blue=Stop Codon Red=Cloning site

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GGCAAGTTGGACGCCCGCAAGATCCGCGAGATTCTCATTAAAGCCAAGAAGGGCGGAAAGATCGCCGTG
TAACAATTGGCAGAGCTCAGAATTCAAGCGATCGCC
GATCAAATAAGGGATAACATGGCTGGATGAAGAAGATGACCTTCATTCTGAGACCAAGTAGATTTACA
GAACAAAGTTTTATATTTACATTGCTGTGGACTATTATTACATATATCATTATTATATAAATCATGAT
GCTAGCCAGCAAAGATGTGAAAATATCTGCTCAAACTTTCAAAGTTTAGTAAGTTTTCTTCATGAGG
CCACCAGTAAAAGACATTAATGAGAATTCCTTAGCAAGGATTTTGTAAAGAAGTTCTTAAACATTGTCA
GTTAACATCACTTTGTCTGGCAAAAGAAAAAATAGACTTTTTCAACTCAGCTTTTTGAGACCTGAA
AAAATTATTATGTAATTTTGAATGTTAAAGATGCACAGAATATGTATGTATAGTTTTACCACAGTG
GATGTATAATACCTTGGCATCTTGTGTGATGTTTTACACACATGAGGGCTGGTGTTCATTAATACTGTT
TTCTAATTTTTCCATAGTTAATCTATAATTAATTACTTCACTATACAAACAAATTAAGATGTTTCAGATA
ATTGAATAAGTACCTTTGTGCCTTGTTCATTTATATCGCTGGCCAGCATTATAAGCAGGTGTATACTT
TTAGCTTGTAGTTCATGTACTGTAATATTTTTACATAAAGGGAACAAATGTCTAGTTTTATTGTA
TAGGAAATTTCCCTGACCCTAAATAATACATTTTGAATGAAACAAGCTTACAAAGATATAATCTATTT
TATTATGGTTTTCCCTTGTATCTATTTTGGTGAATGTGTTTTTAAATGGAACACTCTCCAAATTTTTC
TAAGACTACTATGAACAGTTTTCTTTAAAAATTTGAGATTAAGAATGCCAGGAATATTGTCATCCTTT
GAGCTGCTGACTGCCAATAACATTCCTCGATCTCTGGGATTTATGCTCATGAACTAAATTAAGCTTAA
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GGGTTGTTGTTGTTGTCATTTGTTATAGTGCTACTCCACTTTAGACACCATAGCTAAAAATAAATATG
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TACTTGCTGTTTTGATTAAGAAAAAGAAATAGTTTCTTACTTTATTTTTACTGGTATGTTCTACTTTTTG
AAAGTTGACTGAAGACTTCTGATTTTGGGTTGAAGGGAAGGAAAAGGAAGAAATGTTTTTACATTCA
TTATTACTTAAAGCATTTTTAAAGCATTTTAATAGTTCTGGATGCAGAAATCATCTAAAATGACAGT
GAATTAGTTTTTAAAGATTTTAGATTTTTTGAAGTTAATTTTTATTGTAAGACTCCTCAAGG
ATTTGTATATGCAACACAGTAAGGAGATCTCCATTTTACTACCTTTCAAGTGAAAAATAGCCTATCAT
ACAATATGCTTGATTTTCAGATTTTCATACTAAACTTAACTACATACTTAAAAGTAGGTTCTTATCAAG
GGTCTCTAACATTGCTTTTTAAACAAGATGTGAACACTTTTCTTAAACATTTTTTAAATGCTTCA
TCTTTTAGTTTTATATAAAGAAATCCACATGTACATTCTGTTTTAGAAATGGGGTGACTACCTTATTA
TAAATTCGAAGTTTCCAAGAGACTTCTTTTCATTGAGGCTTCGTAAGTTTTCCATTTTGATTCTGA
ACGCGT AAGCGGCCGCGGCATCTAGATTCGAAGAAAATGACCGACCAAGCGACGCCCAACCTGCCATCA
CGATTTTCGATTCCACCGCCGCTTCTATGAAAGG
    
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Restriction Sites:

Sgfl-MluI

OTI Disclaimer:

Our molecular clone sequence data has been matched to the sequence identifier above as a point of reference. Note that the complete sequence of this clone is largely the same as the reference sequence but may contain minor differences , e.g., single nucleotide polymorphisms (SNPs).

Components:

The cDNA clone is shipped in a 2-D bar-coded Matrix tube as 10 ug dried plasmid DNA. The package also includes 100 pmols of both the corresponding 5' and 3' vector primers in separate vials.

RefSeq:

[NM_004972.4](#)

Summary:

This gene encodes a non-receptor tyrosine kinase that plays a central role in cytokine and growth factor signalling. The primary isoform of this protein has an N-terminal FERM domain that is required for erythropoietin receptor association, an SH2 domain that binds STAT transcription factors, a pseudokinase domain and a C-terminal tyrosine kinase domain. Cytokine binding induces autophosphorylation and activation of this kinase. This kinase then recruits and phosphorylates signal transducer and activator of transcription (STAT) proteins. Growth factors like TGF-beta 1 also induce phosphorylation and activation of this kinase and translocation of downstream STAT proteins to the nucleus where they influence gene transcription. Mutations in this gene are associated with numerous inflammatory diseases and malignancies. This gene is a downstream target of the pleiotropic cytokine IL6 that is produced by B cells, T cells, dendritic cells and macrophages to produce an immune response or inflammation. Disregulation of the IL6/JAK2/STAT3 signalling pathways produces increased cellular proliferation and myeloproliferative neoplasms of hematopoietic stem cells. A nonsynonymous mutation in the pseudokinase domain of this gene disrupts the domains inhibitory effect and results in constitutive tyrosine phosphorylation activity and hypersensitivity to cytokine signalling. This gene and the IL6/JAK2/STAT3 signalling pathway is a therapeutic target for the treatment of excessive inflammatory responses to viral infections. Alternative splicing results in multiple transcript variants encoding distinct isoforms. [provided by RefSeq, Jul 2020]

Locus ID:

3717

MW:

77.9