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Product datasheet for SC323566

TYK2 (NM_003331) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	TYK2 (NM_003331) Human Untagged Clone
Tag:	Tag Free
Symbol:	TYK2
Synonyms:	IMD35; JTK1
Mammalian Cell Selection:	None
Vector:	pCMV6-XL4
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>NCBI ORF sequence for NM_003331, the custom clone sequence may differ by one or more nucleotides

ATGCCTCTGCGCCACTGGGGGATGGCCAGGGGCAGTAAGCCCGTTGGGGATGGAGCCCAGCCCATGGCTG
CCATGGGAGGCCTGAAGGTGCTTCTGCACTGGGCTGGTCCAGGCGGCGGGGAGCCCTGGGTCACTTTCAG
TGAGTCATCGCTGACAGCTGAGGAAGTCTGCATCCACATTGCACATAAAGTTGGTATCACTCCTCCTTGC
TTCAATCTCTTTGCCCTCTTCGATGCTCAGGCCCAAGTCTGGTTGCCCCCAAACCACATCCTAGAGATCC
CCAGAGATGCAAGCCTGATGCTATATTTCCGCATAAGGTTTTATTTCCGGAACTGGCATGGCATGAATCC
TCGGGAACCGGCTGTGTACCGTTGTGGGCCCCCAGGAACCGAGGCATCCTCAGATCAGACAGCACAGGGG
ATGCAACTCCTGGACCCAGCCTCATTTGAGTACCTCTTTGAGCAGGGCAAGCATGAGTTTGTGAATGACG
TGGCATCACTGTGGGAGCTGTCGACCGAGGAGGAGATCCACCACTTTAAGAATGAGAGCCTGGGCATGGC
CTTTCTGCACCTCTGTCACCTCGCTCTCCGCCATGGCATCCCCCTGGAGGAGGTGGCCAAGAAGACCAGC
TTCAAGGACTGCATCCCGCGCTCCTTCCGCCGGCATATCCGGCAGCACAGCGCCCTGACCCGGCTGCGCC
TTCGGAACGTCTTCCGCAGGTTCCTGCGGGACTTCCAGCCGGGCCGACTCTCCCAGCAGATGGTCATGGT
CAAATACCTAGCCACACTCGAGCGGCTGGCACCCCGCTTCGGCACAGAGCGTGTGCCCGTGTGCCACCTG
AGGCTGCTGGCCCAGGCCGAGGGGGAGCCCTGCTACATCCGGGACAGTGGGGTGGCCCCTACAGACCCTG
GCCCTGAGTCTGCTGCTGGGCCCCCAACCCACGAGGTGCTGGTGACAGGCACTGGTGGCATCCAGTGGTG
GCCAGTAGAGGAGGAGGTGAACAAGGAGGAGGGTTCTAGTGGCAGCAGTGGCAGGAACCCCCAAGCCAGC
CTGTTTGGGAAGAAGGCCAAGGCTCACAAGGCAGTCGGCCAGCCGGCAGACAGGCCGCGGGAGCCACTGT
GGGCCTACTTCTGTGACTTCCGGGACATCACCCACGTGGTGCTGAAAGAGCACTGTGTCAGCATCCACCG
GCAGGACAACAAGTGCCTGGAGCTGAGCTTGCCTTCCCGGGCTGCGGCGCTGTCCTTCGTGTCGCTGGTG
GACGGCTATTTCCGCCTGACGGCCGACTCCAGCCACTACCTGTGCCACGAGGTGGCTCCCCCACGGCTGG
TGATGAGCATCCGGGATGGGATCCACGGACCCCTGCTGGAGCCATTTGTGCAGGCCAAGCTGCGGCCCGA
GGACGGCCTGTACCTCATTCACTGGAGCACCAGCCACCCCTACCGCCTGATCCTCACAGTGGCCCAGCGT
AGCCAGGCACCAGACGGCATGCAGAGCTTGCGGCTCCGAAAGTTCCCCATTGAGCAGCAGGACGGGGCCT
TCGTGCTGGAGGGCTGGGGCCGGTCCTTCCCCAGCGTTCGGGAACTTGGGGCTGCCTTGCAGGGCTGCTT

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GCTGAGGGCCGGGGATGACTGCTTCTCTCTGCGTCGCTGTTGCCTGCCCCAACCAGGAGAAACCTCCAAT
CTCATCATCATGCGGGGGGCTCGGGCCAGCCCCAGGACACTCAACCTCAGCCAGCTCAGCTTCCACCGGG
TTGACCAGAAGGAGATCACCCAGCTGTCCCACTTGGGCCAGGGCACAAGGACCAACGTGTATGAGGGCCG
CCTGCGAGTGGAGGGCAGCGGGGACCCTGAGGAGGGCAAGATGGATGACGAGGACCCCCTCGTGCCTGGC
AGGGACCGTGGGCAGGAGCTACGAGTGGTGCTCAAAGTGCTGGACCCTAGTCACCATGACATCGCCCTGG
CCTTCTACGAGACAGCCAGCCTCATGAGCCAGGTCTCCCACACGCACCTGGCCTTCGTGCATGGCGTCTG
TGTGCGCGGCCCTGAAAATATCATGGTGACAGAGTACGTGGAGCACGGACCCCTGGATGTGTGGCTGCGG
AGGGAGCGGGGCCATGTGCCCATGGCTTGGAAGATGGTGGTGGCCCAGCAGCTGGCCAGCGCCCTCAGCT
ACCTGGAGAACAAGAACCTGGTTCATGGTAATGTGTGTGGCCGGAACATCCTGCTGGCCCGGCTGGGGTT
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GAGCGGGTGGAGAGGATCCCCTGGCTGGCCCCCGAATGCCTACCAGGTGGGGCCAACAGCCTAAGCACCG
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CCGCAGTCCCTCCGAGAAGGAGCATTTCTACCAGAGGCAGCACCGGCTGCCCGAGCCCTCCTGCCCACAG
CTGGCCACACTCACCAGCCAGTGTCTGACCTATGAGCCAACCCAGAGGCCATCATTCCGCACCATCCTGC
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GGACCCTACGGTTTTCCACAAGCGCTATTTGAAAAAGATCCGAGATCTGGGCGAGGGTCACTTCGGCAAG
GTCAGCTTGTACTGCTACGATCCGACCAACGACGGCACTGGCGAGATGGTGGCGGTGAAAGCCCTCAAGG
CAGACTGCGGCCCCCAGCACCGCTCGGGCTGGAAGCAGGAGATTGACATTCTGCGCACGCTCTACCACGA
GCACATCATCAAGTACAAGGGCTGCTGCGAGGACCAAGGCGAGAAGTCGCTGCAGCTGGTCATGGAGTAC
GTGCCCCTGGGCAGCCTCCGAGACTACCTGCCCCGGCACAGCATCGGGCTGGCCCAGCTGCTGCTCTTCG
CCCAGCAGATCTGCGAGGGCATGGCCTATCTGCACGCGCAGCACTACATCCACCGAGACCTAGCCGCGCG
CAACGTGCTGCTGGACAACGACAGGCTGGTCAAGATCGGGGACTTTGGCCTAGCCAAGGCCGTGCCCGAA
GGCCACGAGTACTACCGCGTGCGCGAGGATGGGGACAGCCCCGTGTTCTGGTATGCCCCAGAGTGCCTGA
AGGAGTATAAGTTCTACTATGCGTCAGATGTCTGGTCCTTCGGGGTGACCCTGTATGAGCTGCTGACGCA
CTGTGACTCCAGCCAGAGCCCCCCCACGAAATTCCTTGAGCTCATAGGCATTGCTCAGGGTCAGATGACA
GTTCTGAGACTCACTGAGTTGCTGGAACGAGGGGAGAGGCTGCCACGGCCCGACAAATGTCCCTGTGAGG
TCTATCATCTCATGAAGAACTGCTGGGAGACAGAGGCGTCCTTTCGCCCAACCTTCGAGAACCTCATACC
CATTCTGAAGACAGTCCATGAGAAGTACCAAGGCCAGGCCCCTTCAGTGTTCAGCGTGTGCTGA

5' Read Nucleotide Sequence:

>OriGene 5' read for mutant NM_003331 unedited
CCGCCCGTCCAGCACTGGGCGGTAGGCGCTGTACGGTGGGAGGTCTATATAAGCAGAGCTCGTTTAGTGA
ACCGTCAGAATTTTGTAATACGACTCACTATAGGGCGGCCGCGAATTCGGCACGAGGGCGCGGCCGGAGG
TCCTCAGGAAGAAGCCGCGGGGACTGGCTGCGCTTGACAGGCTGCACTTGGATGGGAGCGGCTGGTGCCT
CGAGATTGCTCTGATGCCGGGTTCTAGGGTGAATATGAAATAACAATAACTCATGTACAGTGTTACAGTT
ACTTTGGGGGCAACCCACAAATGAGTCCTAAAAAAAAAAATAAAACCAAAAATAAGGGGGTTGTGTGGTT
GTTTAGGCCATATCCAGTCCAATACCTCTGATTCTATTAAAGGAAAAATTACTGAGGGGAGGTTGAAAAA
AAAAAAAAAAAAAAATTAACCATCCGCACAAC

Kinase Domain Sequence:

>SC323566 kinase domain raw sequence. By performing BLASTX analysis with this sequence against NCBI refernce protein database, you can confirm the presence of the kinase-deficient mutation
AWGGCGAAGGTCMTTCGGCAGGTCAGCTTGTACTGCTACGATCCGACCAACGACGGCACTGGCGAGATGG
TGGCGGTGATGGCCCTCAAGGCAGACTGCGGCCCCCAGCACCGCTCGGGCTGGAAGCAGGAGATTGACAT
TCTGCGCACGCTCTACCACGAGCACATCATCAAGTACAAGGGCTGCTGCGAGGACCAAGAAATTCCTTGA
GCTCATAGGCATTGCTCAGGGTCAGATGACAGTTCTGAGACTCAC

Restriction Sites: Please inquire

ACCN: NM_003331

Insert Size: 4200 bp

OTI Disclaimer:	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
OTI Annotation:	This kinase-deficient mutant clone was generated by created by site-directed mutagenesis from the corresponding wild-type clone. See details in "Application of active and kinase-deficient kinome collection for identification of kinases regulating hedgehog signaling." Cell. 2008 May p536-548.
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_003331.3, NP_003322.2
RefSeq Size:	4224 bp
RefSeq ORF:	3564 bp
Locus ID:	7297
UniProt ID:	P29597
Cytogenetics:	19p13.2
Domains:	B41, pkinase, SH2, TyrKc, S_TKc
Protein Families:	Druggable Genome, Protein Kinase
Protein Pathways:	Jak-STAT signaling pathway
Gene Summary:	This gene encodes a member of the tyrosine kinase and, more specifically, the Janus kinases (JAKs) protein families. This protein associates with the cytoplasmic domain of type I and type II cytokine receptors and promulgate cytokine signals by phosphorylating receptor subunits. It is also a component of both the type I and type III interferon signaling pathways. As such, it may play a role in anti-viral immunity. A mutation in this gene has been associated with Immunodeficiency 35. [provided by RefSeq, Sep 2020]