

Product datasheet for RC213878

JAK1 (NM_002227) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	JAK1 (NM_002227) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	JAK1
Synonyms:	AIIDE; JAK1A; JAK1B; JTK3
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC213878 representing NM_002227 Red=Cloning site Blue=ORF Green=Tags(s)

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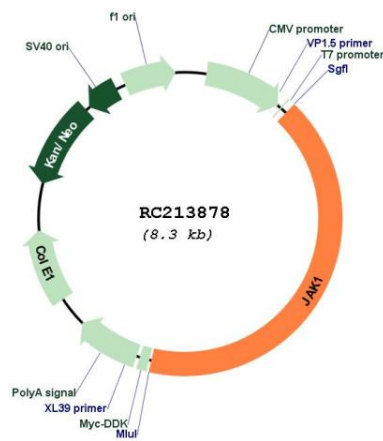
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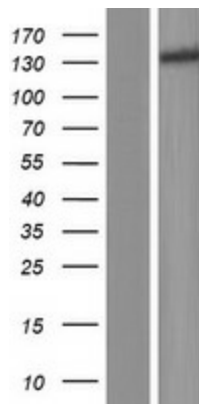
OTI Disclaimer:	The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially 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:	<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_002227.4
RefSeq Size:	5053 bp
RefSeq ORF:	3465 bp
Locus ID:	3716
UniProt ID:	P23458
Cytogenetics:	1p31.3
Domains:	pkinase, SH2
Protein Families:	Druggable Genome, Protein Kinase
Protein Pathways:	Jak-STAT signaling pathway, Pancreatic cancer, Pathways in cancer
MW:	133.3 kDa

Gene Summary:

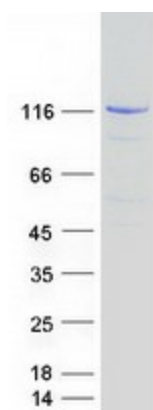
This gene encodes a membrane protein that is a member of a class of protein-tyrosine kinases (PTK) characterized by the presence of a second phosphotransferase-related domain immediately N-terminal to the PTK domain. The encoded kinase phosphorylates STAT proteins (signal transducers and activators of transcription) and plays a key role in interferon-alpha/beta, interferon-gamma, and cytokine signal transduction. This gene plays a crucial role in effecting the expression of genes that mediate inflammation, epithelial remodeling, and metastatic cancer progression. This gene is a key component of the interleukin-6 (IL-6)/JAK1/STAT3 immune and inflammation response and is a therapeutic target for alleviating cytokine storms. The kinase activity of this gene is directly inhibited by the suppressor of cytokine signalling 1 (SOCS1) protein. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Jul 2020]

Product images:


Circular map for RC213878



Western blot validation of overexpression lysate (Cat# [LY400824]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC213878 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified JAK1 protein (Cat# [TP313878]). The protein was produced from HEK293T cells transfected with JAK1 cDNA clone (Cat# RC213878) using MegaTran 2.0 (Cat# [TT210002]).