

# Product datasheet for RC213878L1

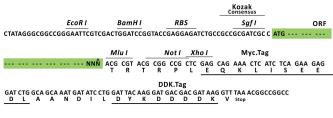
# JAK1 (NM\_002227) Human Tagged Lenti ORF Clone

# **Product data:**

### OriGene Technologies, Inc.

9620 Medical Center Drive, Ste 200 Rockville, MD 20850, US Phone: +1-888-267-4436 https://www.origene.com techsupport@origene.com EU: info-de@origene.com CN: techsupport@origene.cn

| Expression Plasmids   |
|---|
| JAK1 (NM_002227) Human Tagged Lenti ORF Clone   |
| Myc-DDK   |
| JAK1  |
| AIIDE; JAK1A; JAK1B; JTK3   |
| None  |
| pLenti-C-Myc-DDK (PS100064)   |
| Chloramphenicol (34 ug/mL)  |
| The ORF insert of this clone is exactly the same as(RC213878).                            |
| Sgfl-Mlul   |
|   |
| Cloning sites used for ORF Shuttling:   |
| Sgf i         ORF         Mlu i            GCG ATC GC         ATG / / NNN         ACG CGT |
|   |



\* The last codon before the Stop codon of the ORF.

ACCN: ORF Size: NM\_002227 3462 bp



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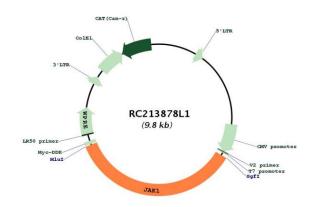
| <b>GRIGENE</b> JAK1 (I | NM_002227) Human Tagged Lenti ORF Clone – RC213878L1   |
|------------------------|--|
| OTI Disclaimer:        | The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene 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. <u>More info</u>                                  |
| 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> <li>Centrifuge at 5,000xg for 5min.</li> <li>Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li> <li>Close the tube and incubate for 10 minutes at room temperature.</li> <li>Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li> <li>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.</li> </ol> |
| Note:                  | Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.   |
| RefSeq:                | <u>NM 002227.2</u>   |
| RefSeq Size:           | 5053 bp  |
| RefSeq ORF:            | 3465 bp  |
| Locus ID:              | 3716   |
| UniProt ID:            | <u>P23458</u>  |
| 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  |

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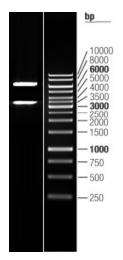
### GRIGENE JAK1 (NM\_002227) Human Tagged Lenti ORF Clone – RC213878L1

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

## **Product images:**



Circular map for RC213878L1



Double digestion of RC213878L1 using Sgfl and Mlul

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