

## Product datasheet for **TG320394**

### JAK1 Human shRNA Plasmid Kit (Locus ID 3716)

#### Product data:

Product Type:	shRNA Plasmids
Product Name:	JAK1 Human shRNA Plasmid Kit (Locus ID 3716)
Locus ID:	3716
Synonyms:	AIIDE; JAK1A; JAK1B; JTK3
Vector:	pGFP-V-RS (TR30007)
E. coli Selection:	Kanamycin
Mammalian Cell Selection:	Puromycin
Format:	Retroviral plasmids
Components:	JAK1 - Human, 4 unique 29mer shRNA constructs in retroviral GFP vector(Gene ID = 3716). 5µg purified plasmid DNA per construct 29-mer scrambled shRNA cassette in pGFP-V-RS Vector, TR30013, included for free.
RefSeq:	<a href="#">NM_001320923</a> , <a href="#">NM_001321852</a> , <a href="#">NM_001321853</a> , <a href="#">NM_001321854</a> , <a href="#">NM_001321855</a> , <a href="#">NM_001321856</a> , <a href="#">NM_001321857</a> , <a href="#">NM_002227</a> , <a href="#">NM_002227.1</a> , <a href="#">NM_002227.2</a> , <a href="#">NM_002227.3</a> , <a href="#">BC132729</a> , <a href="#">BC009079</a> , <a href="#">BC023604</a> , <a href="#">BC062431</a> , <a href="#">BC111401</a> , <a href="#">NM_002227.4</a>
UniProt ID:	<a href="#">P23458</a>
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]
shRNA Design:	These shRNA constructs were designed against multiple splice variants at this gene locus. To be certain that your variant of interest is targeted, please contact <a href="mailto:techsupport@origene.com">techsupport@origene.com</a> . If you need a special design or shRNA sequence, please utilize our <a href="#">custom shRNA service</a> .



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**Performance  
Guaranteed:**

OriGene guarantees that the sequences in the shRNA expression cassettes are verified to correspond to the target gene with 100% identity. One of the four constructs at minimum are guaranteed to produce 70% or more gene expression knock-down provided a minimum transfection efficiency of 80% is achieved. Western Blot data is recommended over qPCR to evaluate the silencing effect of the shRNA constructs 72 hrs post transfection. To properly assess knockdown, the gene expression level from the included scramble control vector must be used in comparison with the target-specific shRNA transfected samples.

For non-conforming shRNA, requests for replacement product must be made within ninety (90) days from the date of delivery of the shRNA kit. To arrange for a free replacement with newly designed constructs, please contact Technical Services at [techsupport@origene.com](mailto:techsupport@origene.com). Please provide your data indicating the transfection efficiency and measurement of gene expression knockdown compared to the scrambled shRNA control (Western Blot data preferred).