

# Recombinant Human JAK2, His-tagged

**Cat. No.** JAK2-27629TH    **Lot. No.** (See product label)

## SPECIFICATION

|                            |                                                                                                                                                                                                                                                                                                                                                                                                       |
|----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Product Overview</b>    | Recombinant human JAK2 containing the catalytic and pseudo kinase domain (aa 532-1132) with an N-terminal proprietary tag and a His-tag.                                                                                                                                                                                                                                                              |
| <b>Species</b>             | Human                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>ProteinLength</b>       | 532-1132 a.a.                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Description</b>         | This gene product is a protein tyrosine kinase involved in a specific subset of cytokine receptor signaling pathways. It has been found to be constitutively associated with the prolactin receptor and is required for responses to gamma interferon. Mice that do not express an active protein for this gene exhibit embryonic lethality associated with the absence of definitive erythropoiesis. |
| <b>Conjugation</b>         | HIS                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Tissue specificity</b>  | Expressed in blood, bone marrow and lymph node.                                                                                                                                                                                                                                                                                                                                                       |
| <b>Biological activity</b> | Specific Activity : 0.2 U/ug. One unit defined as the amount of enzyme that will transfer 1nmol phosphate to Tyr substrate per minute at pH 7.4 and 30deg.C. Assay buffer : 50mM HEPES pH 7.4, 3mM MgCl <sub>2</sub> , 3mM MnCl <sub>2</sub> , 1mM DTT, 3um Na-orthovanadate, 0.1M ATP, 3                                                                                                             |
| <b>Form</b>                | Liquid                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Storage buffer</b>      | Preservative: NoneConstituents: 50% Glycerol, 0.05% Tween 20, 3mM DTT, 25mM                                                                                                                                                                                                                                                                                                                           |

 Tel: 1-631-559-9269    1-516-512-3133

 Email: [info@creative-biomart.com](mailto:info@creative-biomart.com)     Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

Tris HCl, 100mM Sodium chloride, pH 8.0

**Storage** Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.

**Sequence Similarities** Belongs to the protein kinase superfamily. Tyr protein kinase family. JAK subfamily. Contains 1 FERM domain. Contains 1 protein kinase domain. Contains 1 SH2 domain.

## GENE INFORMATION

**Gene Name** JAK2 Janus kinase 2 [ Homo sapiens ]

**Official Symbol** JAK2

**Synonyms** JAK2; Janus kinase 2; tyrosine-protein kinase JAK2; JTK10;

**Gene ID** 3717

**mRNA Refseq** NM\_004972

**Protein Refseq** NP\_004963

**Uniprot ID** O60674

**Chromosome Location** 9p24

**Pathway** Adipocytokine signaling pathway, organism-specific biosystem; Adipocytokine signaling pathway, conserved biosystem; CXCR4-mediated signaling events, organism-specific biosystem; Chemokine signaling pathway, organism-specific biosystem; Chemokine signaling pathway, conserved biosystem;

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**Function**

ATP binding; SH2 domain binding; growth hormone receptor binding; heme binding; histone binding;

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