

Recombinant Human Janus Kinase 1

CATALOG #:	P1678-10	10 µg
	P1678-50	50 µg
ALTERNATIVE NAMES:	Tyrosine-protein kinase JAK1, JAK1, JAK1A, JAK1B	
SOURCE:	Insect Cells (<i>sf9</i>)	
PURITY:	≥ 95% by SDS-PAGE	
MOL. WEIGHT:	37.25 kDa (aa 843 – 1154 with C-terminal His tag)	
FORM:	Liquid	
FORMULATION:	50 mM Tris pH 7.5, 150 mM NaCl, 0.1mM EDTA, 2 mM DTT in 35% Glycerol	
STORAGE CONDITIONS:	This product is stable at ≤ -70 °C for up to one year from the date of receipt. For optimal storage, aliquot into smaller quantities after centrifugation and store at recommended temperature. Avoid repeated freeze-thaw cycles.	

DESCRIPTION:

Janus Kinase 1, also known as JAK1, is a member of the Janus kinase (JAK) family, one of ten recognized non-receptor tyrosine kinase families. It uses the JAK-STAT pathway to transduce cytokine-mediated signals. The enzyme has two phosphate-transferring domains that are near-identical. One domain exhibits kinase activity, while the other regulates the kinase activity of the first. JAK inhibitors are being studied for the treatment of atopic dermatitis, essential thrombocythemia, rheumatoid arthritis, polycythemia vera, psoriasis, alopecia, ulcerative colitis, etc.

SPECIFIC ACTIVITY: ≥ 20 mU/mg

UNIT DEFINITION: One unit is the amount of enzyme that generates 1 µmole of ADP per minute at pH 7.2 at 37 °C.

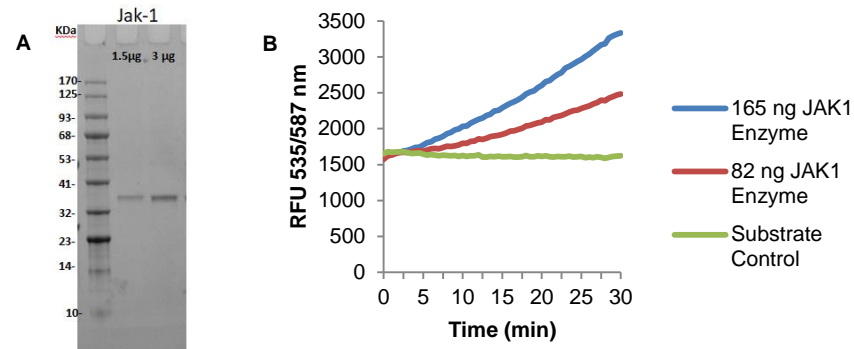


Figure A. SDS-PAGE of Recombinant Human Janus Kinase 1. Recombinant JAK1 (1.5 and 3 µg) was loaded on SDS-PAGE (4-20%) under reducing conditions and stained with Coomassie Blue.

Figure B. Activity of Recombinant Human Janus Kinase 1. Recombinant JAK1 kinase activity (using BioVision's ADPsensor™ Universal Kinase Activity Assay Kit, Cat. No. K212) was measured in presence of synthetic peptide substrate in kinetic mode at 37 °C.

RELATED PRODUCTS:

ADPsensor™ Universal Kinase Activity Assay Kit (Cat. No. K212)
 DiscoveryPak™ Receptor Tyrosine Kinase (RTK) Inhibitor Set (Cat. No. K859)
 DiscoveryPak™ EGFR Tyrosine Kinase Inhibitor Set (Cat. No. K858)
 IFN-alpha 2b, Human Recombinant (Cat. No. 4595)
 IFN-alpha 2a, Human Recombinant (Cat. No. 4594)
 IFN-alpha 1, Human Recombinant (Cat. No. 4596)
 IL-2 Receptor α, Human Recombinant (Cat. No. 7100)
 IL-2 (Rat) ELISA Kit (Cat. No. E4831)
 Human CellExp™ IL-2 R beta / CD122, Human Recombinant (Cat. No. 7391)

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