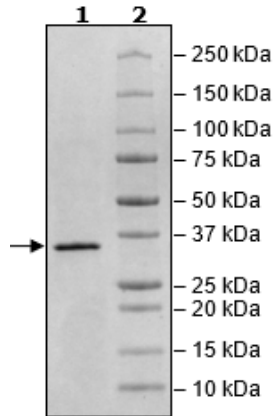


## Product Information

<b>Description:</b>	Recombinant human JAK1 (janus kinase 1), encompassing amino acids 561-852 that correspond to the JH2 pseudokinase domain). This construct contains an N-terminal His-tag (6xHis). This protein was affinity purified.
<b>Background:</b>	Janus kinases (JAKs) are a family of intracellular non-receptor tyrosine kinases, including JAK1, JAK2, JAK3 and TYK2 (tyrosine kinase 2), important in the modulation of inflammatory processes. JAKs contain a catalytically inactive pseudokinase regulatory domain (JH2), that acts as a negative regulator, as well as an active kinase domain (JH1). Most of the mutations in JAK proteins that link to hematological and immune-related diseases occur in the JH2 domain, resulting in increased JAK2 activity or decreased cytokine-induced signaling. Most inhibitors developed so far target the JH1 domain and seem unable to fully treat the disease, while generating significant side effects by suppressing normal cytokine signaling. Recent reports demonstrate that the pseudokinase domain of JH2 could provide an ideal site for selective inhibitor development and support the treatment of diseases like myeloproliferative neoplasms (MNs), while generating minimal side effects. The development of such inhibitors will open new avenues in cancer therapy.
<b>Species:</b>	Human
<b>Construct:</b>	JAK1 (His-561-852)
<b>Concentration:</b>	1.34 mg/ml
<b>Expression System:</b>	Sf9
<b>Purity:</b>	≥90%
<b>Format:</b>	Aqueous buffer solution.
<b>Formulated In:</b>	40 mM Tris-HCl, pH 8.0, 110 mM NaCl, 2.2 mM KCl, 0.04% Tween-20, and 20% glycerol
<b>MW:</b>	35 kDa
<b>Genbank Accession:</b>	NM_002227.4
<b>Stability:</b>	At least 6 months at -80°C.
<b>Storage:</b>	-80°C
<b>Instructions for Use:</b>	Thaw on ice and gently mix prior to use. DO NOT VORTEX. Perform a quick spin before opening. Aliquot into small volumes and flash freeze for long term storage. Avoid multiple freeze/thaw cycles.
<b>Assay Conditions:</b>	Assay was done according to JAK1 (JH2 Pseudokinase Domain) Inhibitor Screening Assay Kit (BPS Bioscience #78891) with JAK1 (JH2 Domain) titrated at various concentrations.
<b>Applications:</b>	Useful for the study of enzyme kinetics, screening inhibitors, and selectivity profiling.

## Quality Control Data

### 4-20% SDS-PAGE Coomassie Staining



### JAK1 (JH2 Domain) Activity

