

## Recombinant human JAK1 protein, N-His

Catalog Number: bs-42216P

Concentration: >1.0mg/ml

Species: Human

AA Seq: 1-331/1154

Predicted MW: 40.6 kDa

Tags: N-His

Endotoxin: Not analyzed

Purity: >90% as determined by SDS-PAGE

Purification: AC

Form: Lyophilized or Liquid

Storage: 20mM Tris-HCl (pH=7.4) with 8M Urea.

Stored at -70°C or -20°C. Avoid repeated freeze/thaw cycles.

**Background:** Janus kinase 1 (JAK1) is a member of a new class of non-receptor protein-tyrosine kinases (PTK) characterized by the presence of a second phosphotransferase-related domain immediately N-terminal to the PTK domain. The second phosphotransferase domain bears all the hallmarks of a protein kinase, although its structure differs significantly from that of the PTK and threonine/serine kinase family members. JAK1 is a large, widely expressed membrane-associated phosphoprotein. It is involved in the interferon-alpha/beta and -gamma signal transduction pathways. The reciprocal interdependence between JAK1 and TYK2 activities in the interferon-alpha pathway, and between JAK1 and JAK2 in the interferon-gamma pathway, may reflect a requirement for these kinases in the correct assembly of interferon receptor complexes. These kinases couple cytokine ligand binding to tyrosine phosphorylation of various known signaling proteins and a unique family of transcription factors termed the signal transducers and activators of transcription, or STATs.

### VALIDATION IMAGES



The purity of the protein is greater than 90% as determined by reducing SDS-PAGE.