

## Product datasheet for **TA384577**

### JAK3 Rabbit Polyclonal Antibody

#### Product data:

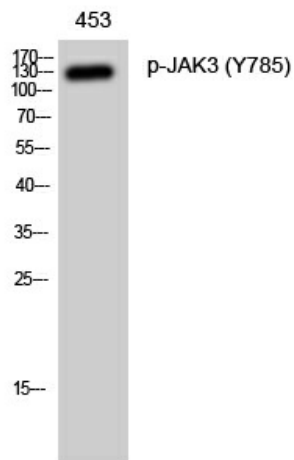
Product Type:	Primary Antibodies
Applications:	ELISA, IHC, WB
Recommended Dilution:	WB: 1/500-1/2000 IHC: 1/100-1/300 ELISA: 1/5000
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Immunogen:	The antiserum was produced against synthesized peptide derived from human JAK3 around the phosphorylation site of Tyr785. AA range:751-800 (Phosphorylated)
Formulation:	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide, pH 7.3.
Concentration:	lot specific
Purification:	Affinity Chromatography
Conjugation:	Unconjugated
Storage:	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.
Stability:	1 year
Predicted Protein Size:	Observed MW (kDa):125
Database Link:	<a href="#">P52333</a>



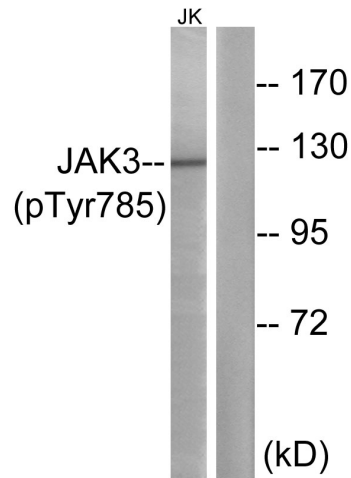
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**Background:**

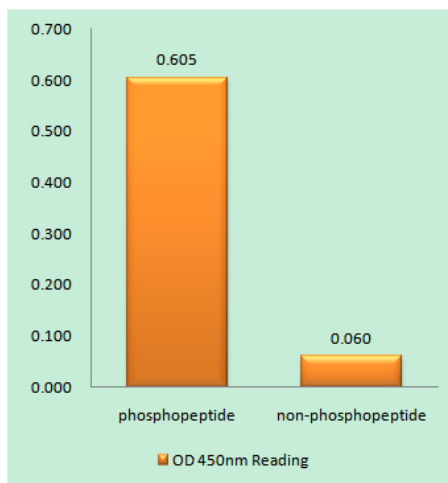
Swiss-Prot Acc.P52333.Non-receptor tyrosine kinase involved in various processes such as cell growth, development, or differentiation. Mediates essential signaling events in both innate and adaptive immunity and plays a crucial role in hematopoiesis during T-cells development. In the cytoplasm, plays a pivotal role in signal transduction via its association with type I receptors sharing the common subunit gamma such as IL2R, IL4R, IL7R, IL9R, IL15R and IL21R. Following ligand binding to cell surface receptors, phosphorylates specific tyrosine residues on the cytoplasmic tails of the receptor, creating docking sites for STATs proteins. Subsequently, phosphorylates the STATs proteins once they are recruited to the receptor. Phosphorylated STATs then form homodimer or heterodimers and translocate to the nucleus to activate gene transcription. For example, upon IL2R activation by IL2, JAK1 and JAK3 molecules bind to IL2R beta (IL2RB) and gamma chain (IL2RG) subunits inducing the tyrosine phosphorylation of both receptor subunits on their cytoplasmic domain. Then, STAT5A AND STAT5B are recruited, phosphorylated and activated by JAK1 and JAK3. Once activated, dimerized STAT5 translocates to the nucleus and promotes the transcription of specific target genes in a cytokine-specific fashion.

**Product images:**

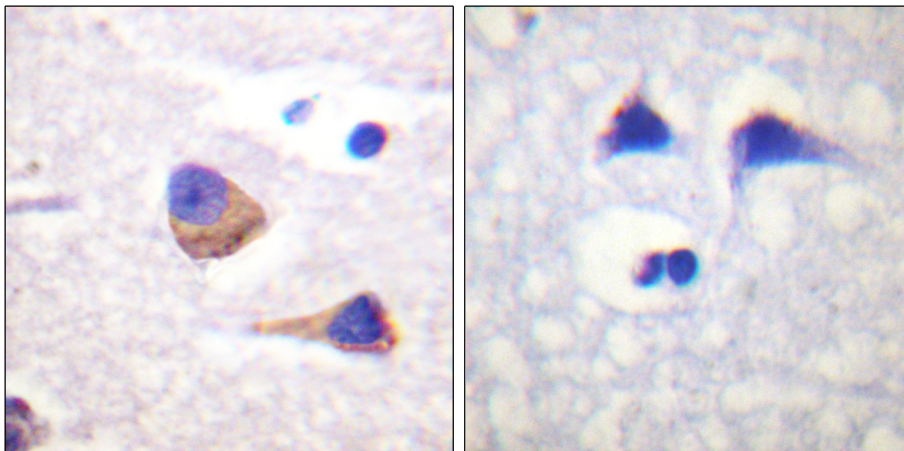
Western blot analysis of Phospho-JAK3 (Tyr785) in 453 lysates using Phospho-JAK3 (Tyr785) antibody.



Western blot analysis of Phospho-JAK3 (Tyr785) in Jurkat lysates using Phospho-JAK3 (Tyr785) antibody. The lane on the right is blocked with the Phospho-peptide.



EnzymeLinked Immunosorbent Assay (Phospho-ELISA) for Immunogen Phospho-peptide (Phospho-left) and NonPhospho-peptide (Phospho-right), using JAK3 (Phospho-Tyr785) antibody.



Immunohistochemistry analysis of paraffin-embedded Human brain using JAK3 (Phospho-Tyr785) antibody. High-pressure and temperature Sodium Citrate pH 6.0 was used for antigen retrieval. Sample with blocking peptide on the right.