Product Datasheet

JAK3 (Ab-785) Antibody

Catalog No: #33170

Package Size: #33170-1 50ul #33170-2 100ul

Orders: order@signalwayantibody.com
Support: tech@signalwayantibody.com

Description

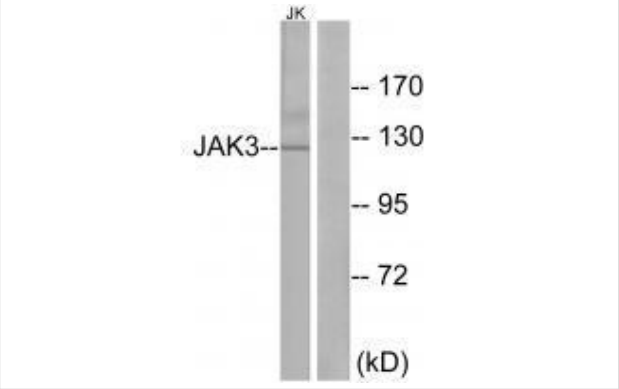
Product Name	JAK3 (Ab-785) Antibody
Host Species	Rabbit
Clonality	Polyclonal
Purification	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
Applications	WB IHC
Species Reactivity	Hu
Specificity	The antibody detects endogenous levels of total JAK3 protein.
Immunogen Type	Peptide
Immunogen Description	Synthesized non-phosphopeptide derived from human JAK3 around the phosphorylation site of tyrosine 785 (S-D-Y(p)-E-L).
Target Name	JAK3
Other Names	EC 2.7.10.2; JAK-3; JAK3; Janus kinase 3; L-JAK
Accession No.	Swiss-Prot: P52333NCBI Gene ID: 3718
SDS-PAGE MW	125kd
Concentration	1.0mg/ml
Formulation	Rabbit IgG in phosphate buffered saline (without Mg2+ and Ca2+), pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Storage	Store at -20°C

Application Details

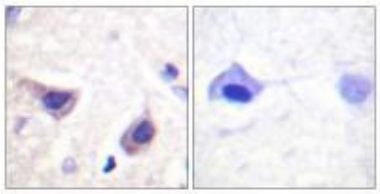
Western blotting: 1:500~1:3000

Immunohistochemistry: 1:50~1:100

Images



Western blot analysis of extracts from Jurkat cells, using JAK3 (Ab-785) antibody #33170.



Immunohistochemistry analysis of paraffin-embedded human brain tissue using JAK3 (Ab-785) antiobdy #33170.

Background

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.

Kawamura M., Proc. Natl. Acad. Sci. U.S.A. 91:6374-6378(1994).
Lai K.S., J. Biol. Chem. 270:25028-25036(1995).
Grimwood J., Nature 428:529-535(2004).

Note: This product is for in vitro research use only and is not intended for use in humans or animals.