

## JAK3 (Ab-785) Conjugated Antibody

Catalog No: #C33170



Package Size: #C33170-AF350 100ul #C33170-AF405 100ul #C33170-AF488 100ul  
 #C33170-AF555 100ul #C33170-AF594 100ul #C33170-AF647 100ul  
 #C33170-AF680 100ul #C33170-AF750 100ul #C33170-Biotin 100ul

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## Description

Product Name	JAK3 (Ab-785) Conjugated Antibody
Host Species	Rabbit
Clonality	Polyclonal
Species Reactivity	Hu
Specificity	The antibody detects endogenous levels of total JAK3 protein.
Immunogen Description	Synthesized non-phosphopeptide derived from human JAK3 around the phosphorylation site of tyrosine 785 (S-D-Y(p)-E-L).
Conjugates	Biotin AF350 AF405 AF488 AF555 AF594 AF647 AF680 AF750
Other Names	EC 2.7.10.2; JAK-3; JAK3; Janus kinase 3; L-JAK
Accession No.	Swiss-Prot#: P52333 NCBI Gene ID: 3718
Uniprot	P52333
GeneID	3718;
Excitation Emission	AF350: 346nm/442nm AF405: 401nm/421nm AF488: 493nm/519nm AF555: 555nm/565nm AF594: 591nm/614nm AF647: 651nm/667nm AF680: 679nm/702nm AF750: 749nm/775nm
Calculated MW	125
Formulation	0.01M Sodium Phosphate, 0.25M NaCl, pH 7.6, 5mg/ml Bovine Serum Albumin, 0.02% Sodium Azide
Storage	Store at 4°C in dark for 6 months

## Application Details

## Suggested Dilution:

AF350 conjugated: most applications: 1: 50 - 1: 250  
 AF405 conjugated: most applications: 1: 50 - 1: 250  
 AF488 conjugated: most applications: 1: 50 - 1: 250  
 AF555 conjugated: most applications: 1: 50 - 1: 250  
 AF594 conjugated: most applications: 1: 50 - 1: 250  
 AF647 conjugated: most applications: 1: 50 - 1: 250  
 AF680 conjugated: most applications: 1: 50 - 1: 250  
 AF750 conjugated: most applications: 1: 50 - 1: 250

## Product Description

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The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.

## Background

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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.

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Note: This product is for in vitro research use only