jak1 Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

Product Name	JAK1, Polyclonal Antibody
Full Product Name	JAK1 (Tyrosine-protein Kinase JAK1, Janus Kinase 1, JAK-1, JAK1A, JAK1B)
Product Gene Name	anti-jak1 antibody
Product Synonym Names	Anti -JAK1 (Tyrosine-protein Kinase JAK1, Janus Kinase 1, JAK-1, JAK1A, JAK1B)
Clonality	Polyclonal
Isotype	IgG
Host	Rabbit
Species Reactivity	Human, Mouse, Rat
Form/Format	Supplied as a liquid in PBS (without Mg2+ and Ca2+), pH 7.4, 150mM sodium chloride, 0.02% sodium azide, 50% glycerol.
Purity/Purification	Affinity Purified Purified by immunoaffinity chromatography.
Specificity	Recognizes human JAK1. Species Crossreactivity: mouse, rat.
Preparation and Storage	May be stored at 4 degree C for short-term only. Aliquot to avoid repeated freezing and thawing. Store at -20 degree C. Aliquots are stable for at least 12 months. For maximum recovery of product, centrifuge the original vial after thawing and prior to removing the cap.
Molecular Weight	132,481 Da
Chromosome Location	Chromosome: 6; NC_007117.5 (31060241..31118556)
3D Structure	ModBase 3D Structure for O12990
Immunogen	Synthetic non-phosphopeptide corresponding to human JAK1 around the phosphorylation site of tyrosine 1022 (K-E-YP-Y-T).
Product Categories/Family for anti-jak1 antibody	Antibodies; Abs to Tyrosine Kinases
Applications Tested/Suitable for anti-jak1 antibody	Western Blot (WB), Immunohistochemistry (IHC)
Application Notes for anti-jak1 antibody	Suitable for use in Western Blot and Immunohistochemistry. Dilution: Western Blot: 1:500-1:1,000 Immunohistochemistry: 1:50-1:100
Related Product Information for anti-jak1 antibody	The Janus (JAK) family of cytoplasmic tyrosine kinases has been implicated in signal transduction induced by cytokines and growth factors, physically associated with ligand-bound receptors. This association that results in tyrosine phosphorylation and activation. JAK1 is approximately 130kD and contains a C-terminal tyrosine kinase domain, an adjacent kinase or kinase-related domain, and five other domains that are highly conserved among JAK family members. Family members such as JAK1, JAK2, and TYK2 are ubiquitous, whereas JAK3 is predominantly expressed in T lymphocytes. Studies with mutant cells that do not express JAK1, JAK2, or TYK2 show that their activation is essential for cellular signaling. JAK family kinases may either phosphorylate each other or be phosphorylated by a yet undescribed tyrosine kinase. Different cytokines can activate via phosphorylation distinct JAK family members. In some cells, the membrane-associated gp130 protein has been implicated in the induction of JAK family phosphorylation, although gp130 itself has no known activity.

Other Notes	Small volumes of anti-jak1 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for jak1 purchase	MBS624380 is an antibody targeting jak1. Also known as JAK1 (Tyrosine-protein Kinase JAK1, Janus Kinase 1, JAK-1, JAK1A, JAK1B). Reactive in Human, Mouse, Rat. Host: Rabbit.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for jak1. It may not necessarily be applicable to this product.

NCBI GI #	226237498
NCBI GeneID	30280
UniProt Primary Accession #	O12990
UniProt Secondary Accession #	O73880
UniProt Related Accession #	O12990; Q7ZU16
NCBI Official Full Name	jak1
NCBI Official Synonym Full Names	Janus kinase 1
NCBI Official Symbol	jak1
UniProt Protein Name	Tyrosine-protein kinase JAK1
UniProt Synonym Protein Names	Janus kinase 1
Protein Family	Tyrosine-protein kinase
UniProt Gene Name	jak1
UniProt Entry Name	JAK1_DANRE
NCBI Protein Information	tyrosine-protein kinase JAK1; jak-1; jak1 kinase; etID309794.6
UniProt Comments for jak1	Function: Tyrosine kinase of the non-receptor type. Appears to be required in early development for specific cell migrations (epiboly), expression of homeobox protein goosecoid and formation of anterior structures. Ref.1 Catalytic activity: ATP + a [protein]-L-tyrosine = ADP + a [protein]-L-tyrosine phosphate. Subcellular location: Endomembrane system; Peripheral membrane protein By similarity. Note: Wholly intracellular, possibly membrane associated Developmental stage: Present in the unfertilized egg through to the blastula stage where it is distributed uniformly. Levels drop rapidly at four hours development, remain very low until 10 hours, then gradually increase from 12 hours with a rapid increase at 48 hours. At 48 hours it is concentrated in the region of the gill arches. Also present in the adult. Ref.1 Domain: Possesses two phosphotransferase domains. The second one probably contains the catalytic domain, while the presence of slight differences suggest a different role for domain 1. Sequence similarities: Belongs to the protein kinase superfamily. Tyr protein kinase family. JAK subfamily.Contains 1 FERM domain.Contains 1 protein kinase domain.Contains 1 SH2 domain.
Research Articles on jak1	**1.** Required for cell migration of anterior mesendoderm during gastrulation, resulting in extension of the anterior body axis. MO/dominant negative expression gives identical morphotype/phenotype to STAT3alpha knockdown.
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