

## JLP/MAX binding protein Polyclonal Antibody

Purified Rabbit Polyclonal Antibody (Pab) Catalog # AP54804

## **Product Information**

Application	IHC-P, IHC-F, IF, ICC, E
Primary Accession	<u>060271</u>
Reactivity	Rat, Dog
Host	Rabbit
Clonality	Polyclonal
Calculated MW	146205
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human JLP/JIP-4
Epitope Specificity	101-188/1321
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Cytoplasm. Cytoplasm, perinuclear region. Note: Perinuclear distribution in response to stress signals such as UV radiation.
SIMILARITY	Belongs to the JIP scaffold family.
SUBUNIT	Homooligomer. Interacts with MAX, MAPK8, MAPK9, MAPK10, MAPK14, MAP3K3, MYC, KNS2 and MAP2K4. Interaction with KNS2 is important in the formation of ternary complex with MAPK8. Interacts with NFKB1.
Post-translational	Phosphorylated by MAPK8 and MAPK14 (By similarity). Phosphorylated upon
modifications	DNA damage, probably by ATM or ATR.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	JIP-4 is a 1,321 amino acid protein encoded by the human gene SPAG9. It contains a large N-terminal extracellular domain, a short transmembrane helical domain, and a cytoplasmic domain. There are 6 N-glycosylation sites, several phosphorylation sites for cAMP/cGMP-dependent protein kinase, protein kinase C, and casein kinase II, and 10 putative myristoylation sites. There is also a leucine zipper motif, with 6 leucine repeats, that may aid in dimerization since there is no upstream basic domain characteristic of DNA binding proteins. The JNK-interacting protein (JIP) group of scaffold proteins selectively mediates JNK signaling by aggregating specific components of the MAPK cascade to form a functional JNK signaling module. JIP-4 is a cytoplasmic, perinuclear protein that has eight known isoforms whose expression varies by tissue and disease state.

## **Additional Information**

Gene ID 9043 Other Names C-Jun-

C-Jun-amino-terminal kinase-interacting protein 4, JIP-4, JNK-interacting protein 4, Cancer/testis antigen 89, CT89, Human lung cancer oncogene 6

	protein, HLC-6, JNK-associated leucine-zipper protein, JLP, Mitogen-activated protein kinase 8-interacting protein 4, Proliferation-inducing protein 6, Protein highly expressed in testis, PHET, Sperm surface protein, Sperm-associated antigen 9, Sperm-specific protein, Sunday driver 1, SPAG9 ( <u>HGNC:14524</u> )
Target/Specificity	Isoform 5 is expressed only in testis on the round spermatids of stage I, II and II. Isoform 5 is absent in spermatogonia and spermatocyte. Isoform 3 is expressed in testis. Isoform 4 is expressed in testis and in acute myeloid leukemia (AML) patients.
Dilution	IHC-P=1:100-500,IHC-F=1:100-500,ICC=1:100-500,IF=1:100-500,ELISA=1:5000- 10000
Format	0.01M TBS(pH7.4) with 1% BSA, 0.09% (W/V) sodium azide and 50% Glyce
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

<b>Protein Information</b>	
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Name	SPAG9 ( <u>HGNC:14524</u> )
Function	The JNK-interacting protein (JIP) group of scaffold proteins selectively mediates JNK signaling by aggregating specific components of the MAPK cascade to form a functional JNK signaling module (PubMed: <u>14743216</u> ). Regulates lysosomal positioning by acting as an adapter protein which links PIP4P1-positive lysosomes to the dynein- dynactin complex (PubMed: <u>29146937</u> ). Assists PIKFYVE selective functionality in microtubule-based endosome-to-TGN trafficking (By similarity).
Cellular Location	Cytoplasm {ECO:0000250 UniProtKB:Q58A65}. Cytoplasm, perinuclear region {ECO:0000250 UniProtKB:Q58A65}. Lysosome membrane. Note=Perinuclear distribution in response to stress signals such as UV radiation {ECO:0000250 UniProtKB:Q58A65}
Tissue Location	Expressed only in testis on the round spermatids of stage I, II and II. Absent in spermatogonia and spermatocyte [Isoform 3]: Expressed in testis.

## Images



Paraformaldehyde-fixed, paraffin embedded (mouse brain); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (JLP MAX binding protein) Polyclonal Antibody, Unconjugated (AP54804) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.