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FYN Recombinant Mouse mAb

Catalog # AP96355

Product Information

Application	WB
Predicted	Human
Host	Mouse
Clonality	Recombinant
Physical State	Liquid
Isotype	IgG1, Kappa
Purity	affinity purified by Protein G
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SIMILARITY	Belongs to the protein kinase superfamily. Tyr protein kinase family. SRC subfamily. Contains 1 protein kinase domain. Contains 1 SH2 domain. Contains 1 SH3 domain.
SUBUNIT	Interacts (via its SH3 domain) with PIK3R1 and PRMT8. Interacts with FYB, PAG1, and SH2D1A. Interacts with CD79A (tyrosine-phosphorylated form); the interaction increases FYN activity. Interacts (via SH2 domain) with CSF1R (tyrosine phosphorylated). Interacts with TOM1L1 (phosphorylated form). Interacts with KDR (tyrosine phosphorylated). Interacts (via SH3 domain) with KLHL2 (via N-terminus). Interacts with SH2D1A and SLAMF1. Interacts (via its SH3 domain) with HEV ORF3 protein. Interacts with ITCH; the interaction phosphorylates ITCH and negatively regulates its activity. Interacts with FASLG. Interacts with RUNX3. Interacts with KIT. Interacts with EPHA8; possible downstream effector of EPHA8 in regulation of cell adhesion. Interacts with PTK2/FAK1; this interaction leads to PTK2/FAK1 phosphorylation and activation. Interacts with CAV1; this interaction couples integrins to the Ras-ERK pathway.
Post-translational modifications	Autophosphorylated at Tyr-420. Phosphorylation on the C-terminal tail at Tyr-531 by CSK maintains the enzyme in an inactive state. PTPRC/CD45 dephosphorylates Tyr-531 leading to activation. ultraviolet B (UVB) strongly increase phosphorylation at Thr-12 and kinase activity, and promotes translocation from the cytoplasm to the nucleus. Dephosphorylation at Tyr-420 by PTPN2 negatively regulates T-cell receptor signaling. Palmitoylation at Cys-3 and Cys-6 regulates subcellular location.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	This gene is a member of the protein-tyrosine kinase oncogene family. It encodes a membrane-associated tyrosine kinase that has been implicated in the control of cell growth. The protein associates with the p85 subunit of phosphatidylinositol 3-kinase and interacts with the fyn-binding protein. Alternatively spliced transcript variants encoding distinct isoforms exist. [provided by RefSeq, Jul 2008]

Additional Information

Other Names	SLK; SYN; p59-FYN; FYN_HUMAN; FYN; Proto-oncogene Syn; Proto-oncogene

	c-Fyn; Src-like kinase (SLK); 2.7.10.2; FYN_MOUSE; FYN_RAT; FYN proto-oncogene, Src family tyrosine kinase; FYN oncogene related to SRC, FGR, YES
Dilution	WB=1:500-1000
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.
Name	FYN Recombinant Mouse mAb
Function	Non-receptor tyrosine-protein kinase that plays a role in many biological processes including regulation of cell growth and survival, cell adhesion, integrin-mediated signaling, cytoskeletal remodeling, cell motility, immune response and axon guidance. Inactive FYN is phosphorylated on its C-terminal tail within the catalytic domain. Following activation by PKA, the protein subsequently associates with PTK2/FAK1, allowing PTK2/FAK1 phosphorylation, activation and targeting to focal adhesions. Involved in the regulation of cell adhesion and motility through phosphorylation of CTNNB1 (beta-catenin) and CTNND1 (delta-catenin). Regulates cytoskeletal remodeling by phosphorylating several proteins including the actin regulator WAS and the microtubule-associated proteins MAP2 and MAPT. Promotes cell survival by phosphorylating AGAP2/PIKE-A and preventing its apoptotic cleavage. Participates in signal transduction pathways that regulate the integrity of the glomerular slit diaphragm (an essential part of the glomerular filter of the kidney) by phosphorylating several slit diaphragm components including NPHS1, KIRREL and TRPC6. Plays a role in neural processes by phosphorylating DPYSL2, a multifunctional adapter protein within the central nervous system, ARHGAP32, a regulator for Rho family GTPases implicated in various neural functions, and SNCA, a small pre-synaptic protein. Participates in the downstream signaling pathways that lead to T-cell differentiation and proliferation following T-cell receptor (TCR) stimulation. Also participates in negative feedback regulation of TCR signaling through phosphorylation of PAG1, thereby promoting interaction between PAG1 and CSK and recruitment of CSK to lipid rafts. CSK maintains LCK and FYN in an inactive form. Promotes CD28-induced phosphorylation of VAV1.

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