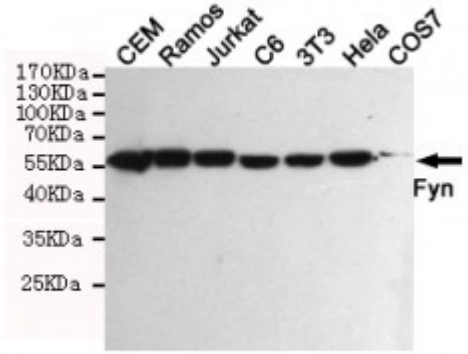
Anti-Fyn antibody



Description	Mouse monoclonal to Fyn.

Model	STJ99129
Host	Mouse
Reactivity	Human, Mouse, Rat, Simian
Applications	ELISA, WB
Immunogen	Purified recombinant human Fyn protein fragments expressed in E.coli.
Gene ID	2534
Gene Symbol	FYN
Dilution range	WB 1:500-2000ELISA 1:10000-20000
Specificity	This antibody detects endogenous levels of Fyn and does not cross-react with related proteins.
Tissue Specificity	Isoform 1 is highly expressed in the brain. Isoform 2 is expressed in cells of hemopoietic lineages, especially T-lymphocytes.
Purification	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
Clone ID	4B8-E7-A8
Note	For Research Use Only (RUO).
Protein Name	Tyrosine-protein kinase Fyn Proto-oncogene Syn Proto-oncogene c-Fyn Src-like kinase SLK p59-Fyn
Molecular Weight	59kDa

Clonality	Monoclonal
Conjugation	Unconjugated
Isotype	IgG2b
Formulation	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Concentration	1 mg/ml
Storage Instruction	Store at -20°C, and avoid repeat freeze-thaw cycles.
Database Links	HGNC:4037OMIM:137025
Alternative Names	Tyrosine-protein kinase Fyn Proto-oncogene Syn Proto-oncogene c-Fyn Src-like kinase SLK p59-Fyn
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.
Cellular Localization	Cytoplasm. Nucleus. Cell membrane. Present and active in lipid rafts. Palmitoylation is crucial for proper trafficking.
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.