

ARG62988 anti-Fyn antibody [FYN-01]

Package: 100 µg
Store at: -20°C

Summary

Product Description	Mouse Monoclonal antibody [FYN-01] recognizes Fyn
Tested Reactivity	Hu, Ms
Tested Application	ICC/IF, IHC-P, IP, WB
Specificity	The clone FYN-01 reacts with Fyn, a 59 kDa non-receptor Src-family protein tyrosine kinase.
Host	Mouse
Clonality	Monoclonal
Clone	FYN-01
Isotype	IgG2b
Target Name	Fyn
Species	Human
Immunogen	Bacterially expressed recombinant fragment of human Fyn (aa 7-176).
Conjugation	Un-conjugated
Alternate Names	p59-FYN; Tyrosine-protein kinase Fyn; Src-like kinase; Proto-oncogene c-Fyn; p59-Fyn; Proto-oncogene Syn; SYN; SLK; EC 2.7.10.2

Application Instructions

Application table	Application	Dilution
	ICC/IF	Assay-dependent
	IHC-P	5 µg/ml
	IP	Assay-dependent
	WB	2 µg/ml
Application Note	IP: Preparation of cell lysate: 30 min on ice (orbital incubator) in lysing buffer; lysing buffer with N-dodecyl beta-D-maltoside (20 mM Tris/Cl, 100 mM NaCl pH 8,2, 1% laurylmaltosid (w/v), 50 mM NaF) Application note: The clone FYN-01 apparently gives very specific signal (by 59 kDa), and nicely immunoprecipitates Fyn from cell lysates. * The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.	
Positive Control	IP: J77 T cell line WB: Jurkat IHC-P: Brain	

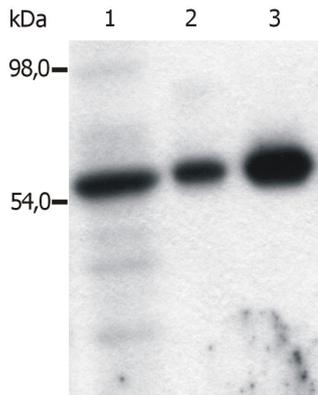
Properties

Form	Liquid
Purification	Purified from hybridoma culture supernatant by protein A-affinity chromatography.

Purity	> 95% (by SDS-PAGE)
Buffer	PBS (pH 7.4) and 15 mM Sodium azide
Preservative	15 mM Sodium azide
Concentration	1 mg/ml
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C or below. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.
Note	For laboratory research only, not for drug, diagnostic or other use.

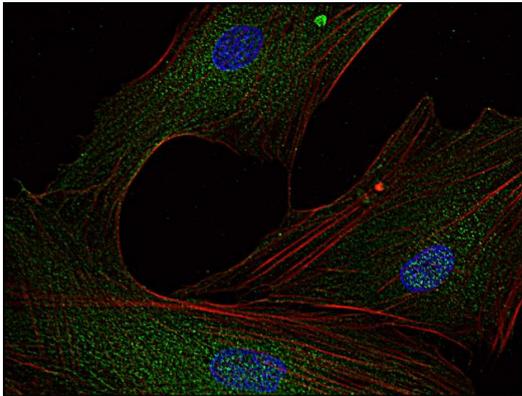
Bioinformation

Database links	GeneID: 14360 Mouse GeneID: 2534 Human Swiss-port # P06241 Human Swiss-port # P39688 Mouse
Gene Symbol	FYN
Gene Full Name	FYN proto-oncogene, Src family tyrosine kinase
Background	Fyn is a ubiquitously expressed Src-family protein tyrosine kinase with important roles e.g. in immune and nervous system. It regulates N-methyl-D-aspartate (NMDA) receptor functions, thus affecting various brain functions, and even many of its other substrates are important for neural migration, synaptic plasticity, oligodendrocyte differentiation, and axon growth and guidance. In immune system Fyn namely regulates the commitment of T cells to activation, is important in T cell energy induction, promotes mast cell chemotaxis and reorganization of cytoskeleton and participates in mast cell activation. Fyn is also involved in embryonic stem cell growth and differentiation, associates with tubulin and may play roles in mitotic spindle formation.
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 cell 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. [UniProt]
Research Area	Cancer antibody; Neuroscience antibody; Signaling Transduction antibody; Src Family Protein Tyrosine Kinases antibody
Calculated Mw	61 kDa
PTM	Autophosphorylated at Tyr-420. Phosphorylation on the C-terminal tail at Tyr-531 by CSK maintains the enzyme in an inactive state (By similarity). 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.



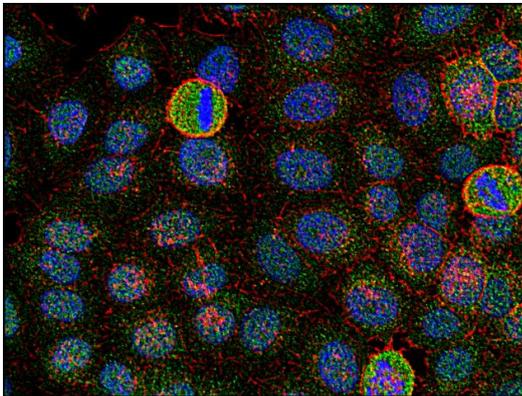
ARG62988 anti-Fyn antibody [FYN-01] IP image

Immunoprecipitation: T cells isolated from fresh buffy coats was immunoprecipitated with ARG62988 anti-Fyn antibody [FYN-01]. Lane 1: original lysate of T cells, Lane 2-3: Immunoprecipitated material eluted from affinity sorbent (FYN-01 coupled to Sepharose beads). Lanes differ in amount of T cell lysate loaded on the immunosorbent. Western blot was stained with ARG62988 anti-Fyn antibody [FYN-01].



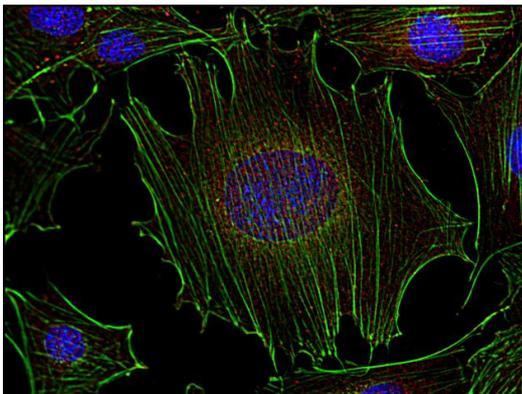
ARG62988 anti-Fyn antibody [FYN-01] ICC/IF image

Immunofluorescence: Human primary fibroblasts stained with ARG62988 anti-Fyn antibody [FYN-01] (green). Actin cytoskeleton was stained with phalloidin (red) and cell nuclei stained with DAPI (blue).



ARG62988 anti-Fyn antibody [FYN-01] ICC/IF image

Immunofluorescence: HeLa cells stained with ARG62988 anti-Fyn antibody [FYN-01] (green). Actin cytoskeleton was stained with phalloidin (red) and cell nuclei stained with DAPI (blue).



ARG62988 anti-Fyn antibody [FYN-01] ICC/IF image

Immunofluorescence: Murine transformed fibroblasts stained with ARG62988 anti-Fyn antibody [FYN-01] (green). Actin cytoskeleton was stained with phalloidin (red) and cell nuclei stained with DAPI (blue).
