

Catalog # ALS16873

SYN / FYN Antibody (clone 2A10) Mouse Monoclonal Antibody

Specification

SYN / FYN Antibody (clone 2A10) - Product Information

Application Primary Accession Other Accession Reactivity Host Clonality Isotype Calculated MW IHC, IF, WB, E <u>P06241</u> <u>2534</u> Human Mouse Monoclonal IgG1 60762

SYN / FYN Antibody (clone 2A10) - Additional Information

Gene ID 2534

Other Names

FYN, C-syn protooncogene, Fyn kinase, Fyn tyrosine kinase, p59-FYN, SYN, Src-like kinase, Src/yes-related novel, Tyrosine kinase fyn, Tyrosine kinase p59fyn(T), Tyrosine-protein kinase Fyn, Proto-oncogene c-Fyn, Proto-oncogene Syn

Target/Specificity Human FYN

Reconstitution & Storage Ascites, 0.03% sodium azide. Long term: -20°C; Short term: +4°C; Avoid freeze-thaw cycles.

Precautions SYN / FYN Antibody (clone 2A10) is for research use only and not for use in diagnostic or therapeutic procedures.

SYN / FYN Antibody (clone 2A10) - Protein Information

Name 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, KIRREL1 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. Phosphorylates PTK2B/PYK2 in response to T-cell receptor activation. 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. In mast cells, phosphorylates CLNK after activation of immunoglobulin epsilon receptor signaling (By similarity).

Cellular Location

Cytoplasm. Nucleus Cell membrane. Perikaryon {ECO:0000250|UniProtKB:Q62844} Note=Present and active in lipid rafts (PubMed:12218089) Palmitoylation is crucial for proper trafficking (PubMed:8206991)

Tissue Location

Isoform 1 is highly expressed in the brain. Isoform 2 is expressed in cells of hemopoietic lineages, especially T- lymphocytes.

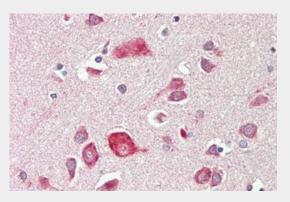
Volume 50 μl

SYN / FYN Antibody (clone 2A10) - Protocols

Provided below are standard protocols that you may find useful for product applications.

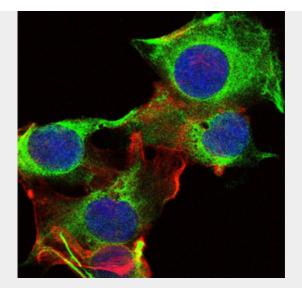
- <u>Western Blot</u>
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- <u>Cell Culture</u>

SYN / FYN Antibody (clone 2A10) - Images

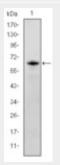


Anti-SYN / FYN antibody IHC staining of human brain, cortex.

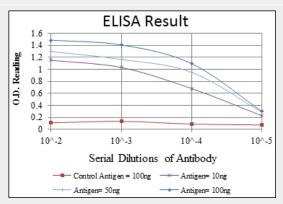




Immunofluorescence of U251 cells using FYN mouse monoclonal antibody (green).



Western blot using FYN monoclonal antibody against human FYN (AA: 7-176) recombinant protein.



Red: Control Antigen (100ng); Purple: Antigen (10ng); Green: Antigen (50ng); Blue: Antigen (100ng);

SYN / FYN Antibody (clone 2A10) - Background

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SYN / FYN Antibody (clone 2A10) - References

Kawakami T.,et al.Mol. Cell. Biol. 6:4195-4201(1986). Semba K.,et al.Proc. Natl. Acad. Sci. U.S.A. 83:5459-5463(1986). Rigley K.,et al.J. Immunol. 154:1136-1145(1995). Goshima N.,et al.Nat. Methods 5:1011-1017(2008). Mungall A.J.,et al.Nature 425:805-811(2003).