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SYN / FYN Antibody (aa7-176, clone FYN-01)

Mouse Monoclonal Antibody
Catalog # ALS11991

Specification

SYN / FYN Antibody (aa7-176, clone FYN-01) - Product Information

Application	**IHC**
Primary Accession	P06241
Reactivity	**Human, Mouse**
Host	**Mouse**
Clonality	**Monoclonal**
Calculated MW	**61kDa KDa**

SYN / FYN Antibody (aa7-176, clone FYN-01) - Additional Information

Gene ID 2534

Other Names
Tyrosine-protein kinase Fyn, 2.7.10.2, Proto-oncogene Syn, Proto-oncogene c-Fyn, Src-like kinase, SLK, p59-Fyn, FYN

Target/Specificity
Bacterially expressed recombinant fragment of human Fyn (aa 7-176)

Reconstitution & Storage
Short term 4°C, long term aliquot and store at -20°C, avoid freeze thaw cycles.

Precautions
SYN / FYN Antibody (aa7-176, clone FYN-01) is for research use only and not for use in diagnostic or therapeutic procedures.

SYN / FYN Antibody (aa7-176, clone FYN-01) - 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)

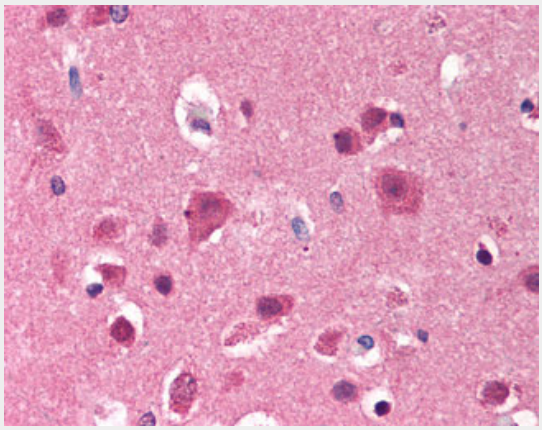
Tissue Location
Isoform 1 is highly expressed in the brain. Isoform 2 is expressed in cells of hemopoietic lineages, especially T- lymphocytes.

SYN / FYN Antibody (aa7-176, clone FYN-01) - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

SYN / FYN Antibody (aa7-176, clone FYN-01) - Images



Anti-FYN antibody IHC of human brain, cortex.

SYN / FYN Antibody (aa7-176, clone FYN-01) - Background

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.

SYN / FYN Antibody (aa7-176, clone FYN-01) - 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).