

### Mouse Fyn Antibody (C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab) Catalog # AP14843B

### **Specification**

# Mouse Fyn Antibody (C-term) - Product Information

Application WB,E
Primary Accession P39688

Other Accession <u>F1LM93</u>, <u>Q04736</u>, <u>P07947</u>, <u>Q62844</u>, <u>A1Y2K1</u>,

P06241, A0INBO, NP 001116365.1

Reactivity Mouse

Predicted Bovine, Human, Pig, Rat

Host Rabbit
Clonality Polyclonal
Isotype Rabbit IgG
Calculated MW 60675
Antigen Region 507-535

# Mouse Fyn Antibody (C-term) - Additional Information

#### **Gene ID 14360**

#### **Other Names**

Tyrosine-protein kinase Fyn, Proto-oncogene c-Fyn, p59-Fyn, Fyn

### Target/Specificity

This Mouse Fyn antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 507-535 amino acids from the C-terminal region of mouse Fyn.

#### **Dilution**

WB~~1:1000

E~~Use at an assay dependent concentration.

### **Format**

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

### **Storage**

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

#### **Precautions**

Mouse Fyn Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

### Mouse Fyn Antibody (C-term) - 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 (PubMed: 12218089, PubMed: 12526739, PubMed: 12640114, PubMed: 12681493, PubMed: 14999081, PubMed: 8007959). Inactive FYN is phosphorylated on its C-terminal tail within the catalytic domain (By similarity). Following activation by PKA, the protein subsequently associates with PTK2/FAK1, allowing PTK2/FAK1 phosphorylation, activation and targeting to focal adhesions (By similarity). Involved in the regulation of cell adhesion and motility through phosphorylation of CTNNB1 (beta-catenin) and CTNND1 (delta-catenin) (PubMed: 12640114). Regulates cytoskeletal remodeling by phosphorylating several proteins including the actin regulator WAS and the microtubule-associated proteins MAP2 and MAPT (By similarity). Promotes cell survival by phosphorylating AGAP2/PIKE-A and preventing its apoptotic cleavage (By similarity). 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 (By similarity). 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 (By similarity). Involved in reelin signaling by mediating phosphorylation of DAB1 following reelin (RELN)- binding to its receptor (PubMed: 12526739). Participates in the downstream signaling pathways that lead to T-cell differentiation and proliferation following T-cell receptor (TCR) stimulation (By similarity). Phosphorylates PTK2B/PYK2 in response to T-cell receptor activation (By similarity). 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 (By similarity). CSK maintains LCK and FYN in an inactive form (PubMed:12218089). Promotes CD28-induced phosphorylation of VAV1 (By similarity). In mast cells, phosphorylates CLNK after activation of immunoglobulin epsilon receptor signaling (PubMed: 12681493). Can also promote CD244-mediated NK cell activation (By similarity).

#### **Cellular Location**

Cytoplasm {ECO:0000250|UniProtKB:P06241}. Nucleus {ECO:0000250|UniProtKB:P06241}. Cell membrane. Perikaryon {ECO:0000250|UniProtKB:Q62844}. Note=Present and active in lipid rafts (PubMed:14645715). Palmitoylation is crucial for proper trafficking (By similarity). {ECO:0000250|UniProtKB:P06241, ECO:0000269|PubMed:14645715}

#### **Tissue Location**

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

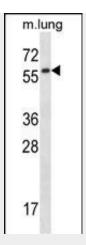
# Mouse Fyn Antibody (C-term) - Protocols

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

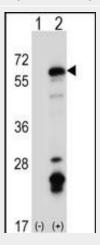
- Western Blot
- Blocking Peptides
- Dot Blot
- <u>Immunohistochemistry</u>
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

# Mouse Fyn Antibody (C-term) - Images





Mouse Fyn Antibody (C-term) (Cat. #AP14843b) western blot analysis in mouse lung tissue lysates (35ug/lane). This demonstrates the Fyn antibody detected the Fyn protein (arrow).



Western blot analysis of Fyn (arrow) using rabbit polyclonal Mouse Fyn Antibody (C-term) (Cat. #AP14843b). 293 cell lysates (2 ug/lane) either nontransfected (Lane 1) or transiently transfected (Lane 2) with the Fyn gene.

# Mouse Fyn Antibody (C-term) - Background

Implicated in the control of cell growth. Plays a role in the regulation of intracellular calcium levels, with isoform 2 showing the greater ability to mobilize cytoplasmic calcium in comparison to isoform 1. Required in brain development and mature brain function with important roles in the regulation of axon growth, axon guidance, and neurite extension. Blocks axon outgrowth and attraction induced by NTN1 by phosphorylating its receptor DDC.

#### Mouse Fyn Antibody (C-term) - References

Garcia-Roman, J., et al. Biochem. Biophys. Res. Commun. 401(2):262-267(2010) Cannons, J.L., et al. J. Immunol. 185(5):2819-2827(2010) Zheng, Y., et al. Mol. Cell. Biol. 30(17):4280-4292(2010) Ohnishi, H., et al. J. Neurosci. 30(31):10472-10483(2010) Luo, J., et al. Reprod. Fertil. Dev. 22(6):966-976(2010)