

# **Goat Anti-FYN Antibody**

Peptide-affinity purified goat antibody Catalog # AF1451a

### **Specification**

### **Goat Anti-FYN Antibody - Product Information**

Application WB
Primary Accession P06241

Other Accession NP 694593, 2534, 14360 (mouse), 25150 (rat)

Reactivity
Predicted
Host
Human, Mouse
Rat, Pig, Dog
Goat

Clonality Polyclonal Concentration 100ug/200ul

Isotype IgG Calculated MW 60762

# **Goat Anti-FYN Antibody - 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

#### **Format**

0.5~mg lgG/ml in Tris saline (20mM Tris pH7.3, 150mM NaCl), 0.02% sodium azide, with 0.5% bovine serum albumin

# **Storage**

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

### **Precautions**

Goat Anti-FYN Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

### **Goat Anti-FYN Antibody - 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:<a href="http://www.uniprot.org/citations/11536198" target="\_blank">11536198</a>, PubMed:<a href="http://www.uniprot.org/citations/15489916" target="\_blank">15489916</a>, PubMed:<a



Tel: 858.875.1900 Fax: 858.875.1999

href="http://www.uniprot.org/citations/15557120" target=" blank">15557120</a>, PubMed:<a href="http://www.uniprot.org/citations/16387660" target="blank">16387660</a>, PubMed:<a href="http://www.uniprot.org/citations/20100835" target="blank">20100835</a>, PubMed:<a href="http://www.uniprot.org/citations/7568038" target="\_blank">7568038</a>, PubMed:<a href="http://www.uniprot.org/citations/7822789" target="blank">7822789</a>). Inactive FYN is phosphorylated on its C-terminal tail within the catalytic domain (PubMed: <a href="http://www.uniprot.org/citations/15489916" target=" blank">15489916</a>). Following activation by PKA, the protein subsequently associates with PTK2/FAK1, allowing PTK2/FAK1 phosphorylation, activation and targeting to focal adhesions (PubMed:<a  $href="http://www.uniprot.org/citations/15489916" \ target="blank">15489916</a>). Involved in the substitution of the substit$ the regulation of cell adhesion and motility through phosphorylation of CTNNB1 (beta-catenin) and CTNND1 (delta-catenin) (PubMed:<a href="http://www.uniprot.org/citations/17194753" target=" blank">17194753</a>). Regulates cytoskeletal remodeling by phosphorylating several proteins including the actin regulator WAS and the microtubule-associated proteins MAP2 and MAPT (PubMed:<a href="http://www.uniprot.org/citations/14707117" target=" blank">14707117</a>, PubMed:<a href="http://www.uniprot.org/citations/15536091" target="blank">15536091</a>). Promotes cell survival by phosphorylating AGAP2/PIKE- A and preventing its apoptotic cleavage (PubMed:<a href="http://www.uniprot.org/citations/16841086" target=" blank">16841086</a>). 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 (PubMed:<a href="http://www.uniprot.org/citations/14761972" target=" blank">14761972</a>, PubMed: <a href="http://www.uniprot.org/citations/18258597" target=" blank">18258597</a>, PubMed: <a href="http://www.uniprot.org/citations/19179337" target="blank">19179337</a>). 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 (PubMed:<a href="http://www.uniprot.org/citations/11162638" target=" blank">11162638</a>, PubMed:<a href="http://www.uniprot.org/citations/12788081" target="blank">12788081</a>, PubMed:<a href="http://www.uniprot.org/citations/19652227" target="blank">19652227</a>). Involved in reelin signaling by mediating phosphorylation of DAB1 following reelin (RELN)- binding to its receptor (By similarity). Participates in the downstream signaling pathways that lead to T-cell differentiation and proliferation following T-cell receptor (TCR) stimulation (PubMed:<a href="http://www.uniprot.org/citations/22080863" target=" blank">22080863</a>). Phosphorylates PTK2B/PYK2 in response to T-cell receptor activation (PubMed:<a href="http://www.uniprot.org/citations/20028775" target=" blank">20028775</a>). 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 (PubMed:<a href="http://www.uniprot.org/citations/18056706" target="\_blank">18056706</a>). CSK maintains LCK and FYN in an inactive form (By similarity). Promotes CD28-induced phosphorylation of VAV1 (PubMed: <a href="http://www.uniprot.org/citations/11005864" target=" blank">11005864</a>). In mast cells, phosphorylates CLNK after activation of immunoglobulin epsilon receptor signaling (By similarity). Can also promote CD244-mediated NK cell activation (PubMed: <a href="http://www.uniprot.org/citations/15713798" target=" blank">15713798</a>).

### **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.

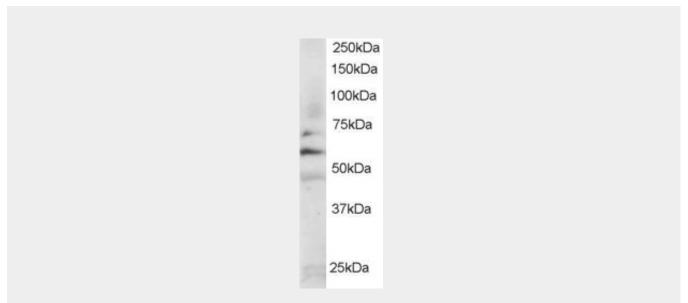
#### Goat Anti-FYN Antibody - Protocols



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

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

# Goat Anti-FYN Antibody - Images



AF1451a staining 0.2  $\mu$ g/ml) of Jurkat lysate (RIPA buffer, 35  $\mu$ g total protein per lane). Primary incubated for 1 hour. Detected by western blot using chemiluminescence.

### **Goat Anti-FYN Antibody - Background**

This gene is a member of the protein-tyrosine kinase oncogene family. It encodes a membrane-associated tyrosine kinase that has been implicated in the control of cell growth. The protein associates with the p85 subunit of phosphatidylinositol 3-kinase and interacts with the fyn-binding protein. Alternatively spliced transcript variants encoding distinct isoforms exist.

# **Goat Anti-FYN Antibody - References**

Expression of Fyn kinase modulates EMT in oral cancer cells. Lewin B, et al. Anticancer Res, 2010 Jul. PMID 20682987.

Variation at the NFATC2 Locus Increases the Risk of Thiazolinedinedione-Induced Edema in the Diabetes REduction Assessment with ramipril and rosiglitazone Medication (DREAM) Study. Bailey SD, et al. Diabetes Care, 2010 Jul 13. PMID 20628086.

Association of mitotic regulation pathway polymorphisms with pancreatic cancer risk and outcome. Couch FJ, et al. Cancer Epidemiol Biomarkers Prev, 2010 Jan. PMID 20056645.

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Roles of Fyn in pancreatic cancer metastasis. Chen ZY, et al. J Gastroenterol Hepatol, 2010 Feb. PMID 19968749.