

Anti-FYN (pY530) Antibody

Rabbit polyclonal antibody to FYN (pY530)

Catalog # AP59560

Product Information

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|--------------------------|---|
| Application | WB, IP, IHC |
| Primary Accession | P06241 |
| Other Accession | P39688 |
| Reactivity | Human, Mouse, Rat, Zebrafish, Pig, Bovine |
| Host | Rabbit |
| Clonality | Polyclonal |
| Calculated MW | 60762 |

Additional Information

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|---------------------------|---|
| Gene ID | 2534 |
| Other Names | Tyrosine-protein kinase Fyn; Proto-oncogene Syn; Proto-oncogene c-Fyn; Src-like kinase; SLK; p59-Fyn |
| Target/Specificity | KLH-conjugated synthetic peptide encompassing a sequence within the C-term region of human FYN. The exact sequence is proprietary. |
| Dilution | WB~~WB (1/500 - 1/1000), IHC (1/100 - 1/200), IP (1/10 - 1/100) IP~~N/A IHC~~WB (1/500 - 1/1000), IHC (1/100 - 1/200), IP (1/10 - 1/100) |
| Format | Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.09% (W/V) sodium azide. |
| Storage | Store at -20 °C. Stable for 12 months from date of receipt |

Protein Information

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| 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: 11536198 , PubMed: 15489916 , PubMed: 15557120 , PubMed: 16387660 , PubMed: 20100835 , PubMed: 7568038 , PubMed: 7822789). Inactive FYN is phosphorylated on its C-terminal tail within the catalytic domain (PubMed: 15489916). Following activation by PKA, the protein subsequently associates with PTK2/FAK1, allowing PTK2/FAK1 phosphorylation, activation and targeting to focal adhesions (PubMed: 15489916). Involved in the regulation of cell adhesion and motility through phosphorylation of CTNNB1 (beta-catenin) and CTNND1 (delta-catenin) (PubMed: 17194753). Regulates cytoskeletal remodeling by |

phosphorylating several proteins including the actin regulator WAS and the microtubule-associated proteins MAP2 and MAPT (PubMed:[14707117](#), PubMed:[15536091](#)). Promotes cell survival by phosphorylating AGAP2/PIKE-A and preventing its apoptotic cleavage (PubMed:[16841086](#)). 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:[14761972](#), PubMed:[18258597](#), PubMed:[19179337](#)). 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:[11162638](#), PubMed:[12788081](#), PubMed:[19652227](#)). 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:[22080863](#)). Phosphorylates PTK2B/PYK2 in response to T-cell receptor activation (PubMed:[20028775](#)). Also participates in negative feedback regulation of TCR signaling through phosphorylation of PAG1 and PDCD1 (PubMed:[18056706](#), PubMed:[32184441](#)). Phosphorylation of PAG1 promotes interaction between PAG1 and CSK and recruitment of CSK to lipid rafts (PubMed:[18056706](#)). Phosphorylation of PDCD1 leads to the recruitment of PTPN11/SHP-2 that mediates dephosphorylation of key TCR proximal signaling molecules (PubMed:[32184441](#)). CSK maintains LCK and FYN in an inactive form (By similarity). Promotes CD28-induced phosphorylation of VAV1 (PubMed:[11005864](#)). In mast cells, phosphorylates CLNK after activation of immunoglobulin epsilon receptor signaling (By similarity). Can also promote CD244-mediated NK cell activation (PubMed:[15713798](#)).

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)

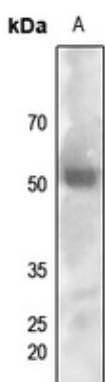
Tissue Location

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

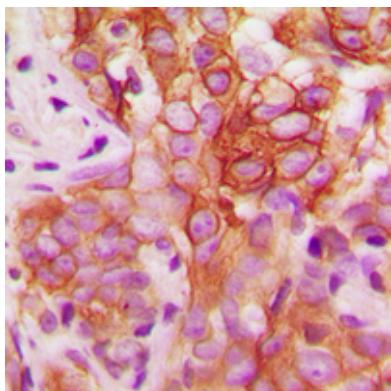
Background

KLH-conjugated synthetic peptide encompassing a sequence within the C-term region of human FYN. The exact sequence is proprietary.

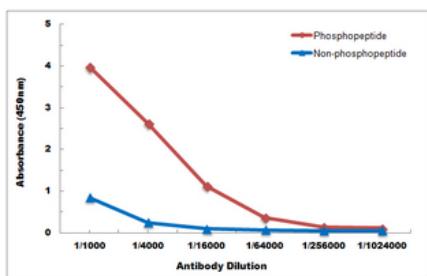
Images



Western blot analysis of FYN (pY530) expression in HEK293T (A) whole cell lysates.



Immunohistochemical analysis of FYN (pY530) staining in human breast cancer formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.



Direct ELISA antibody dose-response curve using Anti-FYN (pY530) Antibody. Antigen (phosphopeptide and non-phosphopeptide) concentration is 5 ug/ml. Goat Anti-Rabbit IgG (H&L) - HRP was used as the secondary antibody, and signal was developed by TMB substrate.

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