

## Product datasheet for **MC204024**

### Fyn (NM\_008054) Mouse Untagged Clone

#### Product data:

|                           |                                      |
|---------------------------|--------------------------------------|
| Product Type:             | Expression Plasmids                  |
| Product Name:             | Fyn (NM_008054) Mouse Untagged Clone |
| Tag:                      | Tag Free                             |
| Symbol:                   | Fyn                                  |
| Synonyms:                 | AI448320; AW552119                   |
| Mammalian Cell Selection: | Neomycin                             |
| Vector:                   | PCMV6-Kan/Neo (PCMV6KN)              |
| E. coli Selection:        | Kanamycin (25 ug/mL)                 |



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**Fully Sequenced ORF:** >BC032149  
 CCACGCGTCCGAAACAAAGCAAAGGAACAGGTGGTGGGGAGTTTGTGTCATGGATGGGTGCCCAATCGA  
 TCGATCGAGTCAGTCCGACCGCTGGTTTCGAAGACATGTGGTGTATATAAAGTTTGTGATAGTTGGTGGA  
 AATTTGGGAGCTTGGATAATGGGCTGTGTGCAATGTAAGGATAAAGAAGCAGCGAAACTGACAGAGGAGA  
 GGGACGGCAGCCTGAACCAGAGCTCTGGTACCCTATGGCACAGACCCACCCCTCAGCACTACCCAG  
 CTTCCGGCGTGACCTCCATCCCGAACTACAACAACCTCCACGCAGCTGGGGCCAGGGACTCACCGTCTTT  
 GGGGGTGTGAACCTCCTCTCACACTGGGACCTACGCACGAGAGGGACAGGAGTGACACTGTTTG  
 TGGCGCTTATGACTATGAAGCACGGACGGAAGATGACCTGAGTTTTACAAAAGGAGAAAAATTTCAAAT  
 ATTGAACAGCTCGGAAGGAGACTGGTGGGAAGCCCGCTCCTTGACAACCGGGAAACTGGTTACATTCCC  
 AGCAATTACGTGGCTCCAGTTGACTCCATCCAGGCAGAAGAGTGGTACTTTGGAAAACTGGCCGCAAAAG  
 ATGCTGAGAGACAGCTCCTGTCTTTGGAAACCAAGAGGTACCTTTCTTATCCGCGAGAGCGAAACCAC  
 CAAAGGTGCCTACTCACTTTCCATCCGTGATTGGGATGATATGAAAGGGACCACGTCAAACATTATAAA  
 ATCCGCAAGCTTGACAATGGTGGATACTATATCACAACCGGGCCAGTTTGAACACTTCAGCAACTGG  
 TACAGCATTACTCAGAGAAAGCTGATGGTTTGTGTTTTAACTTAACTGTGGTTTCATCAAGTTGTACCCC  
 ACAAACTTCTGGATTGGCTAAAGATGCTTGGGAAGTTCACGTGACTCGTTGTTTCTGGAGAAGAAGCTG  
 GGGCAGGGGTGTTTCGCTGAAGTGTGGCTTGGTACCTGGAATGGAATACAAAAGTAGCCATAAAGACCC  
 TTAAGCCAGGCACCATGTCTCCGGAGTCTTCCCTGGAGGAGGCGCAGATCATGAAGAAGCTGAAGCATGA  
 CAAGCTGGTGCAGCTCTACGCGGTCTGTCTGAGGAGCCATTTACATCGTCACGGAGTACATGAGCAAA  
 GGAAGTTTGTGACTTCTTAAAAGATGGTGAAGGAAGAGCTCTGAAGTTGCCAAACCTTGTGGACATGG  
 CGGCACAGGTTGCTGCAGGAATGGCTTACATCGAGCGCATGAATTATATCCACAGAGATCTGCGATCAGC  
 AAACATTCTAGTGGGAATGGACTAATTTGCAAGATTGCTGACTTTGGATTGGCTCGGTTGATTGAAGAC  
 AATGAATACACAGCAAGACAAGGTGCGAAGTTTCCATTAAAGTGGACAGCCCCGAAGCGGCCCTGTATG  
 GAAGTTTCACAATCAAGTCTGACGTATGGTCTTTTGGAACTTACTCACAGAGCTGGTCACCAAAGGAAG  
 AGTGCCATACCCAGGCATGAACAACCGGAGGTGCTGGAGCAGGTGGAGAGAGGCTATAGGATGCCCTGC  
 CCACAGGACTGCCGATCTCCCTGCACGAGCTCATGATCCACTGCTGGAAAAAGGATCCGGAAGAGCGCC  
 CGACCTTCGAGTACTTGCAGGGTCTCCTGGAGGACTACTTTACGGCCACAGAGCCCCAGTATCAGCCCGG  
 TGAAAACCTGTGAGAGCCTGCGCTTCAGACGCCTTCCCGAGGCCTCCCTACCCCTCCCATAGCTTC  
 CAATTCTGTAGCCAGCTGCCCCAGAGCAGCGAGAACCCTCCAGGATCAGATTGCATGTGACTCTGAAGCT  
 GAACTTCCACGGCCCTATTAATGACACTTGTCCCCAGTCCGAACCTCCTCTGTGAACCATCTGAGACA  
 GAAGCGTGTATTTCTCAGACTTGGAAATGCATTGTATCGATGTTATGTCAAAGGCCAAACCTCTGTTCA  
 GTGTAATAGCTGCTCCTGTGCCAACAATCCCAGTGCTTTCCTTTTTAAAAAAGAAAAAGCAAATCCTA  
 TGTGATTTTAACTCTGTCTTACCTGATTCAACTAAAAAAAAAAAAAAAAA

**Restriction Sites:** RsrII-NotI

**ACCN:** NM\_008054

**Insert Size:** 1605 bp

**OTI Disclaimer:** Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).

**Components:** The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

**Reconstitution Method:**

1. Centrifuge at 5,000xg for 5min.
2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.

**RefSeq:** [BC032149](#), [AAH32149](#)

**RefSeq Size:** 2149 bp

**RefSeq ORF:** 1605 bp

**Locus ID:** 14360

**UniProt ID:** [P39688](#)

**Cytogenetics:** 10 20.51 cM

**Gene Summary:** 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.[UniProtKB/Swiss-Prot Function]

Transcript Variant: This variant (2) uses an alternate in-frame exon in the coding region compared to variant 1. It encodes an isoform (b) with a different and shorter internal segment compared to isoform a. Variants 2 and 3 encode the same isoform (b).