

## Product datasheet for **MC216804**

### Lyn (NM\_010747) Mouse Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Lyn (NM_010747) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Lyn
Synonyms:	AA407514; Hck-2; p53Lyn; p56Lyn
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



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**Fully Sequenced ORF:** >MC216804 representing NM\_010747  
Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGGATCGCC**

ATGGGATGTATTAATCAAAAAGGAAAGACAATCTCAATGACGATGAAGTAGATTCAAGACTCAACCAG  
TTCCTGAATTTTCATCTTTTACCAGGACAGAGATTTCAAACAAAAGATCCAGAGGAACAAGGTGACATTGT  
GGTGGCCTTATACCCCTTATGATGGCATCCACCCAGATGACTTGTCTTCAAGAAAAGGAGAAAAGATGAAA  
GTTCTAGAAGAGCATGGGAATGGTGGAAAGCTAAGTCCCTTTCATCAAAGAGAGAAGGCTTCATCCCCA  
GCAACTACGTGGCCAAGGTCAACACCTTAGAACTGAAGAGTGGTTCTTCAAGGACATAACAAGGAAAGA  
TGCAGAGCGACAGCTTCTGGCACCAGGGAACAGTGCAGGAGCTTTCCTTATCAGAGAAAAGCGAACTTTA  
AAGGGAAGCTTCTCTTTCTGTCAGAGATTATGACCCTATGCATGGTATGTCATTAAGCACTACAAAA  
TTAGAAGTCTGGACAATGGTGGCTATTACATCTCTCCTCGCATCACTTTCCCTGCATCAGTGACATGAT  
TAAGCATTACAAAAGCAGTCTGATGGTCTATGCAGAAGACTGGAGAAGGCATGCATCAGTCCCAAACCT  
CAGAAGCCATGGGATAAAGATGCCTGGGAGATCCCCCGGAGTCCATTAAGTTGGTGAAAAGCTTGGCG  
CAGGGCAGTTTGGGGAAGTCTGGATGGGTTACTATAACAACAGCACAAAAGGTGGCTGTGAAGACCCTCAA  
GCCCGGCACCATGTCTGTGCAGGCATTCCTGGAAGAGGCCAACCTCATGAAGACCTTGCAACATGACAAG  
CTAGTGGCGGTGTACGCTGTGGTCACCAAGGAGGAGCCCATCTACATCATACCGAGTTCATGGCTAAGG  
GTAGTTTGGCTGGATTTCTCAAGAGTGTGAAGGTGGCAAGGTGCTGTGCCAAGCTCATTGACTTCTC  
GGCCAGATTGCAGAAGGCATGGCGTACATCGAGCGGAAGAACTACATCCACCGTATCTGCGAGCTGCT  
AACGTCCTGGTCTCTGAGTCACTCATGTGCAAGATTGCAGACTTTGGCCTCGCGAGAGTCATCGAAGATA  
ACGAGTACACAGCAAGGGAAGGTGCGAAGTTCCTATCAAGTGGACAGCTCCAGAGGCCATCAACTTCGG  
CTGCTTCACTATCAAATCTGACGTGTGGTCTTCCGGAATTCCTGTATGAGATTGTACCTATGGGAAG  
ATTCCCTACCCAGGAGAACCAACGCAGATGTGATGAGCGCACTGTACAGGGATATCGAATGCCACGCA  
TGGAGAACTGCCAGATGAGCTCTATGACATCATGAAAATGTGTTGAAAAGAAAAGGCAGAGGAGAGGCC  
AACTTTTGACTACTTACAGAGTGTCTGGATGACTTCTATACAGCCACAGAAGGGCAGTATCAGCAGCAA  
CCG**TAG**

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA

**Restriction Sites:** Sgfl-Mlul

**ACCN:** NM\_010747

**Insert Size:** 1476 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:** [NM\\_010747.2](#), [NP\\_034877.2](#)

**RefSeq Size:** 3393 bp

**RefSeq ORF:** 1476 bp

**Locus ID:** 17096

**Cytogenetics:** 4 2.05 cM

**Gene Summary:**

Non-receptor tyrosine-protein kinase that transmits signals from cell surface receptors and plays an important role in the regulation of innate and adaptive immune responses, hematopoiesis, responses to growth factors and cytokines, integrin signaling, but also responses to DNA damage and genotoxic agents. Functions primarily as negative regulator, but can also function as activator, depending on the context. Required for the initiation of the B-cell response, but also for its down-regulation and termination. Plays an important role in the regulation of B-cell differentiation, proliferation, survival and apoptosis, and is important for immune self-tolerance. Acts downstream of several immune receptors, including the B-cell receptor, CD79A, CD79B, CD5, CD19, CD22, FCER1, FCGR2, FCGR1A, TLR2 and TLR4. Plays a role in the inflammatory response to bacterial lipopolysaccharide. Mediates the responses to cytokines and growth factors in hematopoietic progenitors, platelets, erythrocytes, and in mature myeloid cells, such as dendritic cells, neutrophils and eosinophils. Acts downstream of EPOR, KIT, MPL, the chemokine receptor CXCR4, as well as the receptors for IL3, IL5 and CSF2. Plays an important role in integrin signaling. Regulates cell proliferation, survival, differentiation, migration, adhesion, degranulation, and cytokine release. Down-regulates signaling pathways by phosphorylation of immunoreceptor tyrosine-based inhibitory motifs (ITIM), that then serve as binding sites for phosphatases, such as PTPN6/SHP-1, PTPN11/SHP-2 and INPP5D/SHIP-1, that modulate signaling by dephosphorylation of kinases and their substrates. Phosphorylates LIME1 in response to CD22 activation. Phosphorylates BTK, CBL, CD5, CD19, CD72, CD79A, CD79B, CSF2RB, DOK1, HCLS1, LILRB3/PIR-B, MS4A2/FCER1B, SYK and TEC. Promotes phosphorylation of SIRPA, PTPN6/SHP-1, PTPN11/SHP-2 and INPP5D/SHIP-1. Required for rapid phosphorylation of FER in response to FCER1 activation. Mediates KIT phosphorylation. Acts as an effector of EPOR (erythropoietin receptor) in controlling KIT expression and may play a role in erythroid differentiation during the switch between proliferation and maturation. Depending on the context, activates or inhibits several signaling cascades. Regulates phosphatidylinositol 3-kinase activity and AKT1 activation. Regulates activation of the MAP kinase signaling cascade, including activation of MAP2K1/MEK1, MAPK1/ERK2, MAPK3/ERK1, MAPK8/JNK1 and MAPK9/JNK2. Mediates activation of STAT5A and/or STAT5B. Phosphorylates LPXN on 'Tyr-72'. Kinase activity facilitates TLR4-TLR6 heterodimerization and signal initiation.[UniProtKB/Swiss-Prot Function]

Transcript Variant: This variant (2) uses an alternate splice site in the 5' coding region, compared to variant 1, resulting in a shorter protein (isoform B).