

Product datasheet for **MG227477**

Lyn (NM_010747) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Lyn (NM_010747) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Lyn
Synonyms:	AA407514; Hck-2; p53Lyn; p56Lyn
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>MG227477 representing NM_010747
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGGGATGTATTAATCAAAAAGGAAAGACAATCTCAATGACGATGAAGTAGATTCAAGACTCAACCAG
 TTCCTGAATTTTCATCTTTTACCAGGACAGAGATTTCAAACAAAAGATCCAGAGGAACAAGGTGACATTGT
 GGTGGCCTTATACCCCTTATGATGGCATCCACCCAGATGACTTGTCTTCAAGAAAAGGAGAAAAGATGAAA
 GTTCTAGAAGAGCATGGGAATGGTGGAAAGCTAAGTCCCTTTCATCAAAGAGAGAAGGCTTCATCCCCA
 GCAACTACGTGGCCAAGGTCAACACCTTAGAACTGAAGAGTGGTTCTTCAAGGACATAACAAGGAAAGA
 TGCAGAGCGACAGCTTCTGGCACCAGGGAACAGTGCAGGAGCTTTCCTTATCAGAGAAAGCGAACTTTA
 AAGGGAAGCTTCTCTTTCTGTCAGAGATTATGACCCTATGCATGGTATGTCATTAAGCACTACAAAA
 TTAGAAGTCTGGACAATGGTGGCTATTACATCTCTCTCGCATCACTTTTCCCTGCATCAGTGACATGAT
 TAAGCATTACAAAAGCAGTCTGATGGTCTATGCAGAAGACTGGAGAAGGCATGCATCAGTCCCAAACCT
 CAGAAGCCATGGGATAAAGATGCCTGGGAGATCCCCCGGAGTCCATTAAGTTGGTGAAAAAGCTTGGCG
 CAGGGCAGTTTGGGGAAGTCTGGATGGGTTACTATAACAACAGCACAAAGGTGGCTGTGAAGACCCTCAA
 GCCCGGCACCATGTCTGTGCAGGCATTCCTGGAAGAGGCCAACCTCATGAAGACCTTGCAACATGACAAG
 CTAGTGGCGGTGTACGCTGTGGTCACCAAGGAGGAGCCCATCTACATCATCACCGAGTTCATGGCTAAGG
 GTAGTTTGGCTGGATTTCCCTCAAGAGTGTGAAGGTGGCAAGGTGCTGTGCCAAGCTCATTGACTTCTC
 GGCCAGATTGCAGAAGGCATGGCGTACATCGAGCGGAAGAACTACATCCACCGTATCTGCGAGCTGCT
 AACGTCCTGGTCTCTGAGTCACTCATGTGCAAGATTGCAGACTTGGCCTCGCGAGAGTCATCGAAGATA
 ACGAGTACACAGCAAGGGAAGGTGCGAAGTCCCTATCAAGTGGACAGCTCCAGAGGCCATCAACTTCGG
 CTGCTTCACTATCAAATCTGACGTGTGGTCTTCGGAATTCTCCTGTATGAGATTGTACCTATGGGAAG
 ATTCCCTACCCAGGAGAACCAACGCAGATGTGATGAGCGCACTGTACAGGGATATCGAATGCCACGCA
 TGGAGAACTGCCAGATGAGCTCTATGACATCATGAAAATGTGTTGAAAAGAAAAGGCAGAGGAGAGGCC
 AACTTTTGACTACTTACAGAGTGTCTGGATGACTTCTATACAGCCACAGAAGGGCAGTATCAGCAGCAA
 CCG

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>MG227477 representing NM_010747
 Red=Cloning site Green=Tags(s)

MGCIKSKRKDNLNDDEVDSKTQVPVPEFHLLPGQRFQTKDPEEQGDIVVALYPYDGIHPDDL SFKKGKMK
 VLEEHGEWWKAKSLSSKREGFIPSNYVAKVNTLETEEWFKDIRKDAERQLLAPGNSAGAF LIRESETL
 KGSFSLSVRDYDPMHGDVIKHYKIRSLDNGGYIISPRITFPICISDMIKHYQKQSDGLCRRLEKACISPKP
 QKPWDKDAWEIPRESIKLVKKL GAGQFGEVWMGYNNSTKVAVKTLKPGTMSVQAFLEENLMKTLQHDK
 LVRLYAVVTKEEPYIITEFMAKGSLLDFLKSDEGGKVLPLKIDFSAQIAEGMAYIERKNYIHRDLRAA
 NVLVSESLMCKIADFLARVIEDNEYTAREGAKFPIKWTAPEA INFGCFTIKSDVVSFGILLYEIVTYGK
 IPYPGRTNADVMSALSQGYRMPRMENCPDEL YDIMKMCWKEAEERPTFDYLSVLD DFYATGEGYQQQ
 P

TRTRPLE - GFP Tag - V

Restriction Sites:

Sgfl-MluI

Cloning Scheme:


ACCN: NM_010747

ORF Size: 1473 bp

OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

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

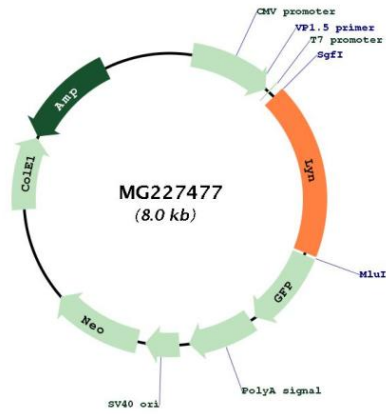
Locus ID: 17096

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]

Product images:



Circular map for MG227477