

Product datasheet for **RC218359**

LNK (SH2B3) (NM_005475) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	LNK (SH2B3) (NM_005475) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	LNK
Synonyms:	IDDM20; LNK
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC218359 representing NM_005475
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGAACGGGCTGCCCTGCAGCCCTCTCGCCCTCTTCGCGCCCTCAGCCTCCCGGGCGGCCGCCCGC
 GGGGCTGGAGCGAGTTCTGTGAGTTGCACGCCGTAGCGGGCCCGGGAGCTGGCCCGCCAGTACTGGCT
 GTTCGCCCCGGGAGCATCCGCAGCACGCGCCGCTGCGCGCCGAGCTGGTGTGCTGCACTTACCGACCTC
 TTCCAGCGCTACTTCTGCCGCGAGGTGCGCGACGGACGGGCGCCGGCCGCGACTACCGGACACAGGCC
 GTGGGCCCCAGCCAAGGCCGAGGCGTCCCGGAGCCAGGCCCGGCCCGCCCGCCCTGGCTGCCAA
 GGCCCGCAGCTCTGAGGAGCTGGCCCGCGCGGCCGCCCGGGCCCTGCTCTTCCAGCACTTTCGCGC
 AGCCTCCGCCACATCTTCGCGCGCGCTCGGCCGGGAGCTGCCAGCGGCCACACCGCTGCCGCCCGC
 GGACCCCGGAGAGGCTGCTGAGACCCCGCCCGCCCTGGCTGGCCAAGAAGTCTGCCCTGGAGCT
 GGCCCGGAGCCGCCACCGAGGCGCTGAAGGAGCGGTGCTGCGCTACAGCCTGGCCGACGAGGCTCC
 ATGGACAGCGGGGACGCTGGCAGCGCGGGAGGCTGGCGCTGCGCCGGGCCCGGCCCGCATGGCCCG
 ACCGCGTGTGGAGCTCTTCAGCCACCAAGAGTTCAAGGCCAAGCTACAAGCAGCTTGTCCAGCAT
 CCAGGAGTCCGGCGGTGCACACGGCTTGAAGTGCCTGACAACCTTTACACCTTTGTGCTGAAGTGAAG
 GACCGGACAGACATCATCTTTGAGGTGGGAGACGAGCAGCAGTGAATTCATGGATGGCTGAGCTCTCG
 AGTGCACAGGCCGAGGCTGGAGAGCACAGAAGCAGAGATGCATATTCCTCAGCCCTAGAGCCTAGCAC
 GTCCAGCTCCCAAGGGGAGCAGATTCCTTAACCAAGGTGCTTCTCCTGGGGGCTGCTGGACCCG
 GCCTGCCAGAAGCGACCATTTCTGTCTGCTACCCCTGGTTCACGGCCCATCTCCAGAGTAAAG
 CAGCTCAGCTGGTTCAGCTGACGGCCCTGATGCTCATGGAGTGTCTGTTGCGCGAGCGGAGCGCG
 GGTGGGGAATACGTGCTCACTTTCAACTTTAGGGGATAGCCAAGCACCTGCGCCTGTCGCTGACAGAG
 CGGGGCCAGTGGCGTGTGACACCTCCACTTTCCCTCGTGTGGACATGCTCCACCATTCCAGCGCT
 CGCCATCCCACTCGAGTGGCGCCCGCTGTGATGTCCGGCTCTCCAGCTACGTGGTAGTGTCTCCCA
 ACCACCAGTTCTGCAACACGGTCTCTTCCCTTTCTCCCTTCTCACTGGGATTAGAGTCCCTTCT
 CACTGGGGTTCAGAGTTGGGCTTCCCCACCTTAGTCTTCTGCTGTCCCGGGGGCTCAGCCAGAGG
 GTCTCCAGGGGATCTCACCCCGGAGCAGATCTCCACCTGGTGCCTTCGCCGAAGAAGTGGCCAA
 CAGCCTGCAGCACCTGGAGCATGAGCCTGTGAATCGAGCCGGGACTCGGACTACGAAATGGACTCATCC
 TCCCGGAGCCACTGCGGCCATAGACAATCAGTACACACCTCTC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC218359 representing NM_005475
 Red=Cloning site Green=Tags(s)

MNGPALQPSSPSSAPSASPAAPRGWSEFCELHVAHAARELARQYWLFAREHPQHAPLRAELVSLQFTDL
 FQRYFCREVRDGRAPGRDYRDTGRGPPAKAEASPEPGPAPGLPKARSSEELAPRPPGPCSFQHFRR
 SLRHI FRRRSAGELPAAHTAAAPGTPGEAAETPARPGLAKKFLPWSLAREPPPEALKEAVLRYSLADEAS
 MDSGARWQRGRLALRRAPGPDGPDVLELFDPPKSSRPKLQAACSSIQEVRRCTRLEMPDNL YTFVLKVK
 DRTDIIIFEVGDEQQLNSWMAELSECTGRGLESTEAE MHIPSALEPSTSSSPRGSTDSL NQGASPGLLDP
 ACQKTDHFLSCYPWFHGPISRVKAAQLVQLQGPDAHGVLVRQSETRRGEYVLT FNFQGI AKHLRLSLTE
 RGQCRVQHLHFPSVVDMLHHFQRSPIPLECGAACDVRLSSYVVVVVSQPPGSCNTVLPFSLPHWDESLP
 HWGSELGLPHLSSSGPRGLSPEGLPGRSSPEQIFHLVPSPEELANSLQHLEHEPVNRRARSDYEMDSS
 SRSHLRAIDNQYTPL

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk6049_c03.zip

Restriction Sites:

Sgfl-Mlul

Cloning Scheme:


ACCN: NM_005475

ORF Size: 1725 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_005475.3](#)

RefSeq Size: 5423 bp

RefSeq ORF: 1728 bp

Locus ID: 10019

UniProt ID: [Q9UQQ2](#)

Cytogenetics: 12q24.12

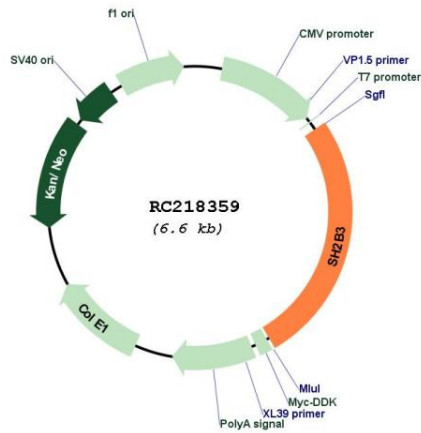
Domains: SH2, PH

Protein Pathways: Neurotrophin signaling pathway

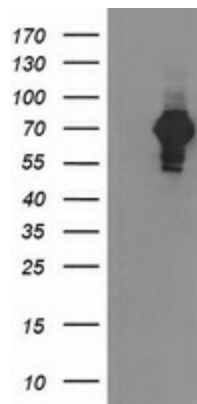
MW: 63 kDa

Gene Summary: This gene encodes a member of the SH2B adaptor family of proteins, which are involved in a range of signaling activities by growth factor and cytokine receptors. The encoded protein is a key negative regulator of cytokine signaling and plays a critical role in hematopoiesis. Mutations in this gene have been associated with susceptibility to celiac disease type 13 and susceptibility to insulin-dependent diabetes mellitus. Alternatively spliced transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Apr 2014]

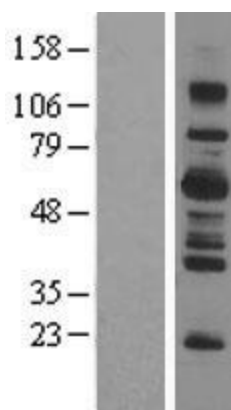
Product images:



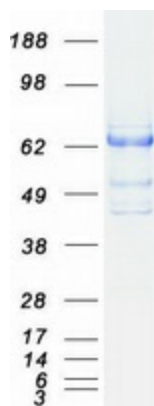
Circular map for RC218359



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY SH2B3 (Cat# RC218359, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-SH2B3 (Cat# [TA502933]). Positive lysates [LY401678] (100ug) and [LC401678] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY401678]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC218359 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified SH2B3 protein (Cat# [TP318359]). The protein was produced from HEK293T cells transfected with SH2B3 cDNA clone (Cat# RC218359) using MegaTran 2.0 (Cat# [TT210002]).