

## 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**CGGATCGCC**

ATGAACGGGCTGCCCTGCAGCCCTCTCGCCCTCTTCCGCGCCCTCAGCCTCCCGGGCGGGCCCGCCG  
 GGGGCTGGAGCGAGTTCTGTGAGTTGCACGCCGTAGCGGGCCCGGGAGCTGGCCCGCCAGTACTGGCT  
 GTTCGCCCGGGAGCATCCGCAGCACGCGCCGCTGCGCGCCGAGCTGGTGTGCTGCACTTACCGACCTC  
 TTCCAGCGCTACTTCTGCCGCGAGGTGCGCGACGGACGGCGCCGGCCGCGACTACCGGACACAGGCC  
 GTGGGCCCCAGCCAAGGCCGAGGCGTCCCGGAGCCAGGCCCGCCCGCCCGCCCGCCCTGGCTGCCAA  
 GGCCCGCAGCTCTGAGGAGCTGGCCCGCGGGCCCGCCGGCCCTGCTCCTTCCAGCACTTTCGCGCG  
 AGCCTCCGCCACATCTTCCGCGCGCTCGGCCGGGAGCTGCCAGCGGCCACACCGCTGCCGCCCGCG  
 GGACCCCGGAGAGGCTGCTGAGACCCCGCCCGCCCTGGCTGGCCAAGAAGTCTGCCCTGGAGCCT  
 GGCCCGGAGCCGCCACCGAGGCGCTGAAGGAGCGGTGCTGCGCTACAGCCTGGCCGACGAGGCTCC  
 ATGGACAGCGGGCAGCTGGCAGCGCGGGAGGCTGGCGCTGCGCCGGGCCCGCCCGCCCGATGGCCCG  
 ACCGCGTGTGGAGCTCTTCAGCCACCCAAGAGTTCAAGGCCCAAGCTACAAGCAGCTTGTCCAGCAT  
 CCAGGAGTCCGGCGGTGCACACGGCTTGAAGTGCCTGACAACCTTTACACCTTTGTGCTGAAGGTGAAG  
 GACCGGACAGACATCATCTTTGAGGTGGGAGACGAGCAGCAGTGAATTCATGGATGGCTGAGCTCTCGG  
 AGTGCACAGGCCGAGGCTGGAGAGCACAGAAGCAGAGATGCATATCCCTCAGCCCTAGAGCCTAGCAC  
 GTCCAGCTCCCAAGGGGAGCAGACATTCCTTAACCAAGGTGCTTCTCCTGGGGGCTGCTGGACCCG  
 GCCTGCCAGAAGCGACCATTTCTGTCTGCTACCCCTGGTTCACGGCCCATCTCCAGAGTAAAG  
 CAGCTCAGCTGGTTCAGCTGACGGCCCTGATGCTCATGGAGTGTCTGTTGCGCGAGCGGAGCGCG  
 GGTGGGGAATACGTGCTCACTTTCAACTTTAGGGGATAGCCAAGCACCTGCGCCTGTCGCTGACAGAG  
 CGGGGCCAGTGGCGTGTGACACCTCCACTTTCCCTCGGTGCTGGACATGCTCCACCACTTCCAGCGCT  
 CGCCATCCCACTCGAGTGGCGCCCGCTGTGATGTCCGGCTCTCCAGCTACGTGGTAGTGTCTCCCA  
 ACCACCAGTTCTGCAACACGGTCTCTTCCCTTTCTCCCTTCTCACTGGGATTCAGAGTCCCTTCT  
 CACTGGGGTTCAGAGTTGGGCTTCCCCACCTTAGTCTTCTGCTGTCGCCGGGGCTCAGCCAGAGG  
 GTCTCCAGGGGATCCTCACCCCGGAGCAGATCTCCACCTGGTGCCTTCGCCGAAGAAGTGGCCAA  
 CAGCCTGCAGCACCTGGAGCATGAGCCTGTGAATCGAGCCGGGACTCGGACTACGAAATGGACTCATCC  
 TCCCGGAGCCACCTGCGGGCCATAGACAATCAGTACACACCTCTC

**ACGCGT**ACGCGGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC218359 representing NM\_005475  
 Red=Cloning site Green=Tags(s)

MNGPALQPSSPSSAPSASPAAPRGWSEFCELHVAHAARELARQYWLFAREHPQHAPLRAELVSLQFTDL  
 FQRYFCREVRDGRAPGRDYRDTGRGPPAKAEASPEPGGPAAPGLPKARSSEELAPRPPGPCSFQHFRR  
 SLRHFIFRRRSAGELPAAHTAAAPGTPGEAAETPARPGLAKKFLPWSLAREPPPEALKEAVLRYSLADEAS  
 MDSGARWQRGRLALRRAPGPDGPDVLELFDPPKSSRPKLQAACSSIQEVRRCTRLEMPDNLVTFVLKVK  
 DRTDIIIFEVGDEQQLNSWMAELSECTGRGLESTEAEHMIPSALEPSTSSSPRGSTDSLQNGASPGLLDP  
 ACQKTDHFLSCYPWFHGPISRVKAAQLVQLQGPDAHGVFLVRQSETRRGEYVLTFFNFQGIKHLRLSLTE  
 RGQCRVQHLHFPSVVDMLHHFQSPIPLECGAACDVRLSSYVVVVVSPPGSCNTVLPFSLPHWDESLP  
 HWGSELGLPHLSSSGCPRLSPEGLPGRSSPEQIFHLVPSPEELANSLQHLEHEPVRNRARDSYEMDSS  
 SRSHLRAIDNQYTPL

**TR**TRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:**

[https://cdn.origene.com/chromatograms/mk6049\\_c03.zip](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.

**Note:** Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

**RefSeq:** [NM\\_005475.3](#)

**RefSeq Size:** 5423 bp

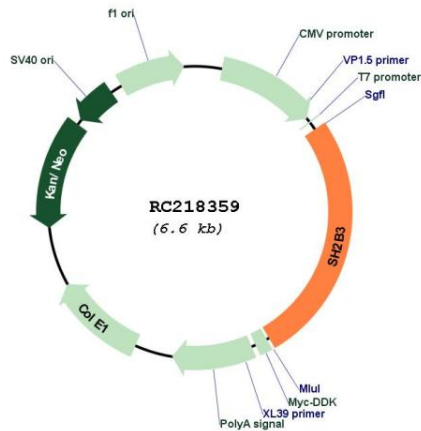
**RefSeq ORF:** 1728 bp

**Locus ID:** 10019

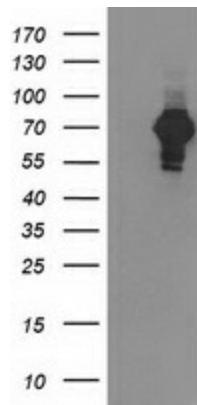
**UniProt ID:** [Q9UQQ2](#)  
**Cytogenetics:** 12q24.12  
**Domains:** SH2, PH  
**Protein Pathways:** Neurotrophin signaling pathway  
**MW:** 63 kDa

**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]

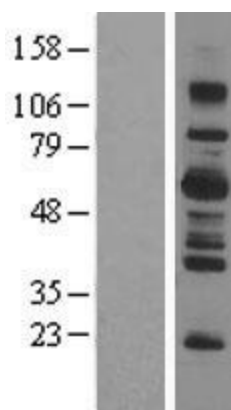
### Product images:



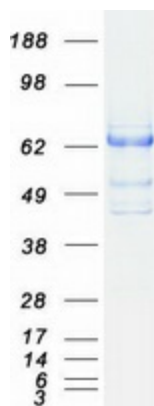
Circular map for RC218359



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]).