

## Product datasheet for MR217587

### Lair1 (NM\_178611) Mouse Tagged ORF Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** Lair1 (NM\_178611) Mouse Tagged ORF Clone  
**Tag:** Myc-DDK  
**Symbol:** Lair1  
**Synonyms:** 5133400O11Rik; BB115266; D7Bwg0421e; Lair-1  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-Entry (PS100001)  
**E. coli Selection:** Kanamycin (25 ug/mL)  
**ORF Nucleotide Sequence:** >MR217587 representing NM\_178611  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCCCGATCGCC

ATGTCACCTTCATCCAGTTATCCTGCTGGTCTGTGCTGTGCCTGGGATGGAAAATTAACACACAGGAGG  
 ATACATCTTGGCTAAAGACATACAGCATTTACATTTTTACTGTGGTCTCTGTGATTTTCTCCTTTGTCT  
 TTCGCCCTTCTGTTCTGCTTCTCAGGCACCGTCAGAAAAGCAGGGACTCCCAAACAACAAAAGACAG  
 CAGCAGAGGCCAGAAGAGAGGCTAAATCTAGCTACTAATGGCCTGGAGATGACTCCAGACATAGTTGCAG  
 ATGACAGGCTTCTGAGGACAGATGGACAGAACTGGACCCAGTTGCAGGAGACCTTCAAGAGGTGAC  
 GTATATCCAGCTGGACCATCACTCCCTCACACAGAGGGCAGTCGGAGCTGTGACCTCACAGAGCACAGAT  
 ATGGCTGAGTCCAGCACATATGCAGCCATCATCAGACAC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >MR217587 representing NM\_178611  
 Red=Cloning site Green=Tags(s)  
 MSLHPVILLVLLVLCGLGWKINTQEDTSLWKTYSIYIFTVVSIVIFLLCLSALLFCFLRHRQKKQGLPNNKRQ  
 QQRPEERLNLATNGLEMPDIVADDRLPEDRWETETWTPVAGDLQEVTYIQLDHSLTQRAVGAVTSQSTD  
 MAESSTYAAIIRH

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

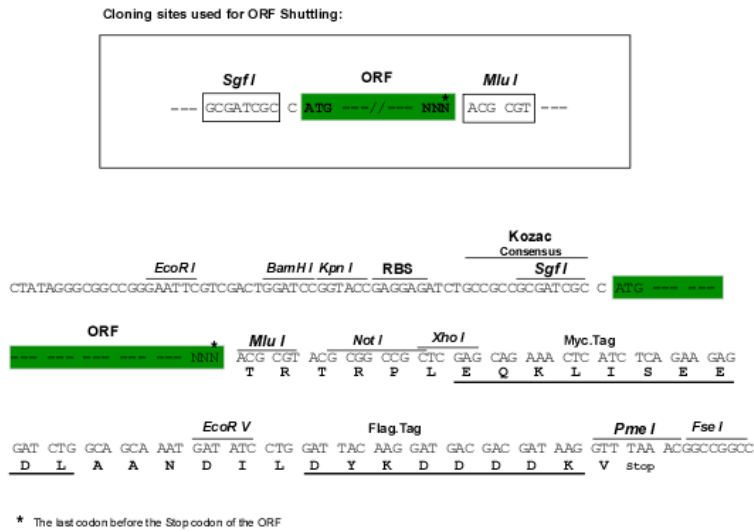
**Chromatograms:** [https://cdn.origene.com/chromatograms/mm9028\\_f11.zip](https://cdn.origene.com/chromatograms/mm9028_f11.zip)



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Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM\_178611

ORF Size: 459 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\\_178611.6](#), [NP\\_848726.1](#)

RefSeq Size: 3182 bp

RefSeq ORF: 462 bp

Locus ID: 52855

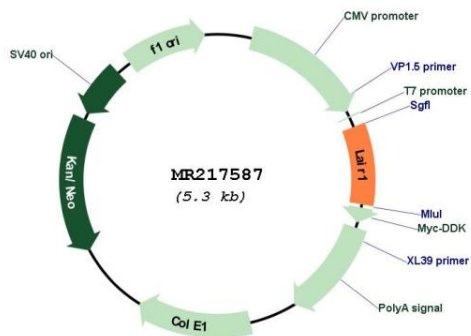
UniProt ID: [Q8BG84](#)

Cytogenetics: 7 2.31 cM

MW: 18 kDa

**Gene Summary:** Functions as an inhibitory receptor that plays a constitutive negative regulatory role on cytolytic function of natural killer (NK) cells, B-cells and T-cells. Activation by Tyr phosphorylation results in recruitment and activation of the phosphatases PTPN6 and PTPN11. It also reduces the increase of intracellular calcium evoked by B-cell receptor ligation. May also play its inhibitory role independently of SH2-containing phosphatases. Modulates cytokine production in CD4+ T-cells, down-regulating IL2 and IFNG production while inducing secretion of transforming growth factor beta. Down-regulates also IgG and IgE production in B-cells as well as IL8, IL10 and TNF secretion. Inhibits proliferation and induces apoptosis in myeloid leukemia cell lines as well as prevents nuclear translocation of NF-kappa-B p65 subunit/RELA and phosphorylation of I-kappa-B alpha/CHUK in these cells. Inhibits the differentiation of peripheral blood precursors towards dendritic cells (By similarity).[UniProtKB/Swiss-Prot Function]

**Product images:**



Circular map for MR217587