

## Product datasheet for **MG203475**

### Lair1 (BC025901) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Lair1 (BC025901) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Lair1
Synonyms:	Lair-1, mLair-1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>MG203475 representing BC025901 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGTCACCTTCATCCAGTTATCCTGCTGGTGTCTGTGCTGTGCCTGGGATGGAAAATTAACACACAGGAGG  
GTTCTCTGCCTGATATTACCATCTTCCCTAATTCAAGTCTTATGATCTCCAAGGGACTTTTGTAACTGT  
TGTGTGCTCACTCTGATAAACACGACTTGTATAACATGGTCCGCCTGGAGAAGGACGGCAGCACCTTT  
ATGGAAAAGAGCACTGAGCCTTATAAACACAGAGGATGAATTTGAGATTGGCCAGTGAATGAAACCATTA  
CTGGACATTATAGCTGTATCTATTGGAAGGGATTACCTGGTCCGAACGTAGTAAGACGCTGGAGCTAAA  
GGTGATCAAAGAAAATGTCATCCAGACTCCTGCCAGGTCCAACCTCAGATACATCTTGCTAAAGACA  
TACAGCATTTACATTTTTACTGTGGTCTCTGTGATTTTCTCCTTTGTCTTTCCGCCCTTCTGTTCTGCT  
TCCTCAGGCACCGTCAGAAAAAGCAGGGACTCCAAAACAACAAAAGACAGCAGCAGAGGCCAGAAGAGAG  
GCTAAATCTAGCTACTAATGGCCTGGAGATGACTCCAGACATAGTTGCAGATGACAGGCTTCTGAGGAC  
AGATGGACAGAAACCTGGACCCAGTTGCAGGAGACCTTCAAGAGGTGACGTATATCCAGCTGGACCATC  
ACTCCCTCACACAGAGGGCAGTCGGAGCTGTGACCTCACAGAGCACAGATATGGCTGAGTCCAGCACATA  
TGCAGCCATCATCAGACGC

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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**Protein Sequence:** >MG203475 representing BC025901  
 Red=Cloning site Green=Tags(s)

MSLHPVILLVLVLCGLGWKINTQEGSLPDITIFPNSSLMISQGTFTVVCSYSDKHDLNMMVRLEKDGSTF  
 MEKSTEPYKTEDEFEIGPVNETITGHYSCIYSKGITWERSKTLLEKVIKENVIQTPAPGPTSDTSLWKT  
 YSIYIFTVVSVIFLLCLALLFCFLRHRQKKQGLPNNKRQQRPEERLNLATNGLEMPDIVADDRLPED  
 RWTETWTPVAGDLQEVYIQLDHHSLTQRAVGAVTSQSTDMAESSTYAAIIRR

TRTRPLE - GFP Tag - V

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** BC025901

**ORF Size:** 789 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:** [BC025901](#), [AAH25901](#)

**RefSeq Size:** 1468 bp

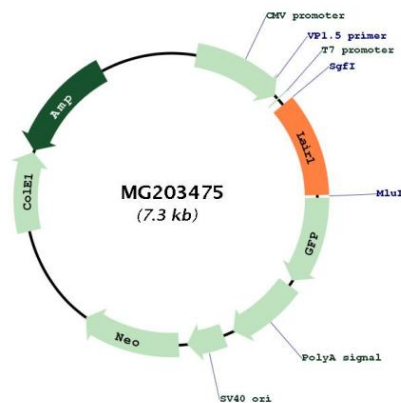
**RefSeq ORF:** 791 bp

**Locus ID:** 52855

**Cytogenetics:** 7 2.31 cM

**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 MG203475