

Product datasheet for **MG225204**

Cd8b1 (NM_009858) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Cd8b1 (NM_009858) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Cd8b1
Synonyms:	Cd8b; Ly-3; Ly-C; Lyt-3
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>MG225204 representing NM_009858 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGCAGCCATGGCTCTGGCTGGTCTTCAGTATGAAGCTGGCAGCTCTCTGGAGCAGCTCTGCCCTCATT
AGACCCCTTCGTCCCTGCTGGTTCAAACCAACCACACGGCAAAGATGTCCTGTGAGGTTAAAGCATCTC
TAAGTTAAACAAGCATCTACTGGCTGCGGGAGCGCCAGGACCCCAAGGACAAGTACTTTGAGTTCTGGCC
TCCTGGAGTTCTCAAAGGAGTTTGTATGGTAAAAGTGTGGACAAGAAAAGAAATATAATTCTTGAGT
CTTCAGACTCAAGACGGCCCTTCTCAGTATCATGAATGTGAAGCCAGAGGACAGTGACTTCTACTTCTG
CGCGACGGTTGGGAGCCCAAGATGGTCTTTGGGACAGGGACGAAGCTGACTGTGGTTGATGTCCTTCT
ACAACCTGCCCCAACCAAGAAGACTACCCTGAAGATGAAGAAGAAGAAGCAATGCCCGTTCCCCACCCAG
AGACCCAGAAGGGCTGACATGCAGCCTTACCACCCTCAGCCTGCTGGTAGTCTGCATCCTGCTTCTGCT
GGCATTCTCGGAGTGGCCGTCTACTTTACTGTGTGCGGAGGAGAGCCCGAATTCACCTTCATGAAACAG
TTTCACAAA

ACGCGTACGCGGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >MG225204 representing NM_009858
 Red=Cloning site Green=Tags(s)

MQPWLWL VFSMKLAALWSSSALIQTPSSLLVQTNHTAKMSCEVKSI SKLTSIYWL RERQDPKDKYFEFLA
 SWSSSKGVL YGESVDKKRNI ILESSDRRPFLSIMNVKPEDSDFYFCATV GSPKMVFGTGKLT VVDVLP
 TTAPT KKTTLKMKKKKQCPFPHPETQKGLTCSL T TLLSLLVVCILL LLAFLGVAVYFCVRRRARIHFMKQ
 FHK

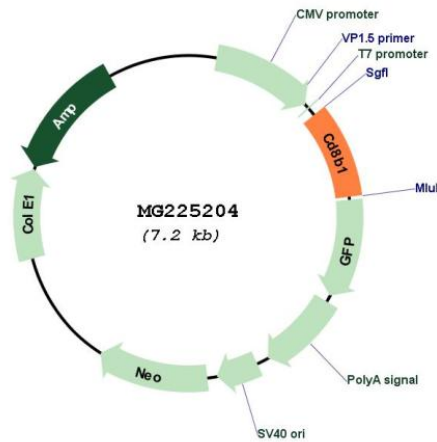
TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM_009858

ORF Size: 639 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:	<ol style="list-style-type: none">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_009858.3
RefSeq Size:	1416 bp
RefSeq ORF:	642 bp
Locus ID:	12526
UniProt ID:	P10300
Cytogenetics:	6 32.14 cM
Gene Summary:	Integral membrane glycoprotein that plays an essential role in the immune response and serves multiple functions in responses against both external and internal offenses. In T-cells, functions primarily as a coreceptor for MHC class I molecule:peptide complex. The antigens presented by class I peptides are derived from cytosolic proteins while class II derived from extracellular proteins. Interacts simultaneously with the T-cell receptor (TCR) and the MHC class I proteins presented by antigen presenting cells (APCs). In turn, recruits the Src kinase LCK to the vicinity of the TCR-CD3 complex. A palmitoylation site in the cytoplasmic tail of CD8B chain contributes to partitioning of CD8 into the plasma membrane lipid rafts where signaling proteins are enriched. Once LCK recruited, it initiates different intracellular signaling pathways by phosphorylating various substrates ultimately leading to lymphokine production, motility, adhesion and activation of cytotoxic T-lymphocytes (CTLs). Additionally, plays a critical role in thymic selection of CD8+ T-cells.[UniProtKB/Swiss-Prot Function]