Product datasheet for RC220600L2

c Abl (ABL1) (NM_005157) Human Tagged Lenti ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	c Abl (ABL1) (NM_005157) Human Tagged Lenti ORF Clone
Tag:	mGFP
Symbol:	c Abl
Synonyms:	ABL; BCR-ABL; bcr/abl; c-ABL; c-ABL1; CHDSKM; JTK7; p150; v-abl
Mammalian Cell Selection:	None
Vector:	pLenti-C-mGFP (PS100071)
E. coli Selection:	Chloramphenicol (34 ug/mL)
ORF Nucleotide Sequence:	The ORF insert of this clone is exactly the same as(RC220600).
Restriction Sites:	SgfI-MluI
Cloning Scheme:	

Cloning sites used for ORF Shuttling:

Sgf I   ORF   *Mlu I*
--- GCG ATC GC C ATG ---//--- NNÑ ACG CGT ---

Kozak Consensus

EcoR I   *BamH I*   *RBS*   *Sgf I*   ORF
CTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCCGCCGCGATCGC C ATG --- --- ---

Mlu I   *Not I*   *Xho I*   mGFP Tag
--- --- --- --- --- --- NNÑ ACG CGT ACG CGG CCG CTC GAG ATG AGC GGG GGC --- --- --- ---
                   T   R   T   R   P   L   E   M   S   G   G   - - - -

Pme I
--- --- GGA CTC AGA TAA GTT TAA ACGGCCGGCCGCGG
   -   -   G   L   R   Stop

* The last codon before the Stop codon of the ORF.

ACCN:	NM_005157
ORF Size:	3390 bp

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OTI Disclaimer:	Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.
	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_005157.3
RefSeq Size:	5384 bp
RefSeq ORF:	3393 bp
Locus ID:	25
UniProt ID:	P00519
Cytogenetics:	9q34.12
Protein Families:	Druggable Genome, Protein Kinase, Transcription Factors
Protein Pathways:	Axon guidance, Cell cycle, Chronic myeloid leukemia, ErbB signaling pathway, Neurotrophin signaling pathway, Pathogenic Escherichia coli infection, Pathways in cancer, Viral myocarditis
MW:	122.7 kDa

Gene Summary:

This gene is a protooncogene that encodes a protein tyrosine kinase involved in a variety of cellular processes, including cell division, adhesion, differentiation, and response to stress. The activity of the protein is negatively regulated by its SH3 domain, whereby deletion of the region encoding this domain results in an oncogene. The ubiquitously expressed protein has DNA-binding activity that is regulated by CDC2-mediated phosphorylation, suggesting a cell cycle function. This gene has been found fused to a variety of translocation partner genes in various leukemias, most notably the t(9;22) translocation that results in a fusion with the 5' end of the breakpoint cluster region gene (BCR; MIM:151410). Alternative splicing of this gene results in two transcript variants, which contain alternative first exons that are spliced to the remaining common exons. [provided by RefSeq, Aug 2014]

Product images:
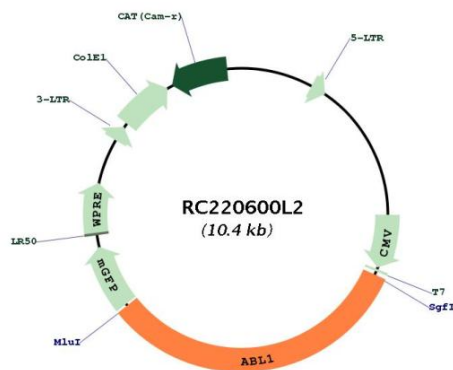
Circular map for RC220600L2
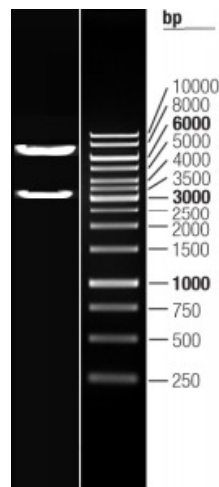
Double digestion of RC220600L2 using SgfI and MluI