

## **Product datasheet for RC402543**

## BCL2 (NM 000657) Human Mutant ORF Clone

## **Product data:**

**Product Type:** Mutant ORF Clones

**Product Name:** BCL2 (NM\_000657) Human Mutant ORF Clone

Mutation Description: A43T

Affected Codon#: 43

Affected NT#: 127

Nucleotide Mutation: BCL2 Mutant (A43T), Myc-DDK-tagged ORF clone of Homo sapiens B-cell CLL/lymphoma 2

(BCL2), nuclear gene encoding mitochondrial protein, transcript variant beta as transfection-

ready DNA

**Effect:** Auoimmune disese, resisne o, ssoiion

Symbol: BCL2

Synonyms: Bcl-2; PPP1R50

E. coli Selection: Kanamycin (25 ug/mL)

**Mammalian Cell** 

Selection:

Neomycin

**Vector:** pCMV6-Entry (PS100001)

Tag: Myc-DDK
ACCN: NM\_000657

**ORF Size:** 615 bp

**Restriction Sites:** Sgfl-Mlul

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ORF Nucleotide Sequence:

>RC402543 representing NM\_000657

Red=Cloning site Blue=ORF Green=Tags(s)

AGCGGACCGACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTCGGATTACAAGGATGACGACGA TAAGGTTTAA

**Protein Sequence:** 

>RC402543 representing NM\_000657 Red=Cloning site Green=Tags(s)

 ${\tt MAHAGRTGYDNREIVMKYIHYKLSQRGYEWDAGDVGAAPPGATPAPGIFSSQPGHTPHPAASRDPVARTS} \\ {\tt PLQTPAAPGAAAGPALSPVPPVVHLTLRQAGDDFSRRYRRDFAEMSSQLHLTPFTARGRFATVVEELFRD} \\ {\tt GVNWGRIVAFFEFGGVMCVESVNREMSPLVDNIALWMTEYLNRHLHTWIQDNGGWVGALGDVSLG} \\ {\tt MAHAGRTGYDNREMSPLVDNIALWMTEYLNRHLHTWIQDNGGWVGALGDVSLG} \\ {\tt MAHAGRTGYDNGMSPLVDNIALWMTEYLNRHLHTWIQDNGGWVGALGDVSLG} \\ {\tt MAHAGRTGYDNGMSPLVDNGMS$ 

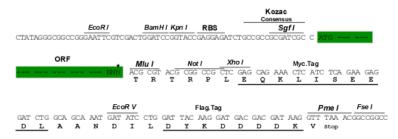
**SGPTRTRRL**EQKLISEEDLAANDILDYKDDDDK**V** 

Restriction Sites: Cloning Scheme:

riction Sites: Sgfl-Mlul

Cloning sites used for ORF Shuttling:





<sup>\*</sup> The last codon before the Stop codon of the ORF



**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 <a href="mailto:customercom">customercom</a> 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. <u>More info</u>

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).

**RefSeq:** NP 000648

RefSeq Size: 615 bp
RefSeq ORF: 618 bp
Locus ID: 596

Cytogenetics: 18q21.33

Protein Families: Druggable Genome, ES Cell Differentiation/IPS, Stem cell - Pluripotency, Transmembrane

**Protein Pathways:** Amyotrophic lateral sclerosis (ALS), Apoptosis, Colorectal cancer, Focal adhesion,

Neurotrophin signaling pathway, Pathways in cancer, Prostate cancer, Small cell lung cancer

**MW:** 22.6 kDa

**Gene Summary:** This gene encodes an integral outer mitochondrial membrane protein that blocks the

apoptotic death of some cells such as lymphocytes. Constitutive expression of BCL2, such as in the case of translocation of BCL2 to Ig heavy chain locus, is thought to be the cause of follicular lymphoma. Alternative splicing results in multiple transcript variants. [provided by

RefSeq, Feb 2016]