

Product datasheet for **MG210382**

Polk (BC052820) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Polk (BC052820) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Polk
Synonyms:	Dinb1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide
Sequence:

>MG210382 representing BC052820
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGGATCGCC**

ATGGATAACACAAAGGAAAAGGACAACCTCAAAGACGACCTCCTGCTCCGCATGGGACTAAACGATAACA
AAGCAGGCATGGAAGGGTTGGATAAGGAGAAAATTAACAAAATTATCATGGAAGCCACAAAGGGTCCAG
ATTTTATGAATATGATCCCAATTTTATGGCCATGAGTCTGGACGAAGCCTACTTGAATATAACACAGCAC
TTGCAGGAAAGGCAAGATTGGCCTGAGGACAAAAGAAGATACTTCATCAAATGGGAACTACTTAAAA
TCGACACACCCAGACAGGAAGCTAACGAGCTGACTGAGTATGAGCGGTCCATCTCCCCGCTGCTTTTTGA
AGATAGTCTCTGATTGCAACCCCAAGGAAGTCTTTCCAACCTGAACCTCTGAAGAACAAAACAATCCT
CAAATAGCCAAAATTCAGTTGTTTTGGAACATCAGCTGAGGAAGTGGTAAAGGAAATTCGCTTCAGAA
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TGATAAGAATAAGCCAAACGGACAGTACCAGATCCTTCCAGCAGGAGCGGGTGTGGACTTCATCAAG
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TTACTTGACAGAACTCTACCAACAGAGAGCGTTGCTGTCTCTCTTTTCTCTGAAACCTTTGGCATTA
TTTTCTTCACATCGCGCTGGGTCTAGGTTCAACAGACCTGGCAAGGGATGGAGAAAGGAAAAGCATGAGT
GTTGAAAGGACATTCACTGAGATAAGTAAGACAGAGGAACAGTACAGCCTGTGCCAAGAACTGTGCGCTG
AGCTCGCCACGACCTCCAGAAGGAAGGACTTAAGGGAAGAACCCTCACCATTAGCTGAAGAACGTGAA
TTTTGAAGTAAAACTCGTGCATCTACCGTTCCGGCCGCATTTCTACTGCAGAGGAAATATTTGCCATT
GCCAAGGAGCTGCTAAGGACAGAAGTAAATGTGGTCTCCACACCCCTGCGGTTAAGACTGATGGGTG
TCCGAATGTCTACTTTTTCCAGTGAAGATGACAGGAAACCAACAAAGGAGCATATTGGTTTCTTACA
AGCTGGAACCAAGCTTTGTCTACTGCGGGTGTCTAGACAAAACCTGCCAAAACCTGAGCTTGCAAAG
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AAGAGGAATGTCTGATATTCCAGACAAGTCTTGTCTATATCACTGGCAAATGAAACCATCAGTACATT
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TGACAGACTTCAGAAGGCTTCAGGAAGGACAAAAGGCCACGTGGAGCAACCTCACCATCAGTCTCTCCA
TGCTTAGCCACCATGGTACCATTGATGCTTCCGTACCTACCTGTGTGCATCTCTGTGCTGTGAGCAGA
TGCAGTTAGAATTGGCCATGATGTCCATGAAGAACATTAGCTTAACA

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence: >MG210382 representing BC052820
 Red=Cloning site Green=Tags(s)

MDNTKEKDNFKDDLRLMGLNDNKAGMEGLDKEKINKIIMEATKGSRFYEYDPNFMAMSLDEAYLNITQH
 LQERQDWPEDKRRYFIKMGNYLKIDTPRQEANELTEYERSISPLLFEPSPPDLQPQGSFQLNSEEQNNP
 QIAQNSVVFGTSAEEVVKIEIRFRIEQKTTLTASAGIAPNTMLAKVCSDKNKPNGQYQILPSRSAVMDFIK
 DLPPIRKVSGIGKVTEKMLMALGIVTCTELYQQRALLSLLFSETSWHYFLHIALGLGSTDLDLARDGERKSMS
 VERTFSEISKTEEQYSLCQELCAELAHDLQKEGLKGRVTIKLKNVNFVKTTRASTVPAAI STAEEIFAI
 AKELLRTEVNVGSPHPLRLRLMGV RMSTFSSDDRKHQQRSIIIGFLQAGNQALSSTGGSLDKTAKTELAK
 PLEM SHKKSFFDKKRSEI SNCDQTSRCKTAGQQALQILEPSQALKKLSQSFETSSENSNDQTFICPVCF
 REQEGVSL EAFNEHVDECLDGPSTSENSKISCYSHASSADIGQKEDVHPSIPLCEKRHENG EITSVDGV
 DLTGTEDRSLKAASMDTLENNRSKEECPDIPDKSCPISLANETISTLSRQESVQPCTDEVVTGRALVCPV
 CNLEQETSDLTLFNIHVDICLNKGIIQELRNSEGNSVKQPKESSRSTDRLQKASGRTKRPRGATSPSAPP
 CLATMVPLMLPYLPVCISVSCEQMQL ELAMMSMKNISLT

TRTRPLE - GFP Tag - V

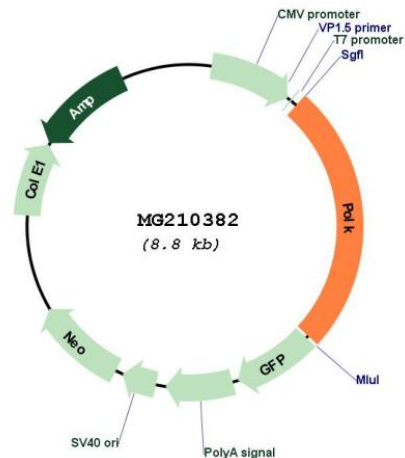
Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



Plasmid Map:



ACCN: BC052820

ORF Size: 2219 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: [BC052820](#), [AAH52820](#)

RefSeq Size: 3517 bp

RefSeq ORF: 2219 bp

Locus ID: 27015

Cytogenetics: 13 D1

Gene Summary: DNA polymerase specifically involved in DNA repair. Plays an important role in translesion synthesis, where the normal high-fidelity DNA polymerases cannot proceed and DNA synthesis stalls (PubMed:12432099). Depending on the context, it inserts the correct base, but causes frequent base transitions, transversions and frameshifts. Lacks 3'-5' proofreading exonuclease activity. Forms a Schiff base with 5'-deoxyribose phosphate at abasic sites, but does not have lyase activity (By similarity).[UniProtKB/Swiss-Prot Function]