

Product datasheet for RG225457

PCBP2 (NM_001128914) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids

Product Name: PCBP2 (NM_001128914) Human Tagged ORF Clone

Tag: TurboGFP

Symbol: PCBP2

Synonyms: hnRNP-E2; HNRNPE2; HNRPE2

Mammalian Cell

Selection:

Neomycin

Vector: pCMV6-AC-GFP (PS100010)

E. coli Selection: Ampicillin (100 ug/mL)

ORF Nucleotide >RG225457 representing NM_001128914
Sequence: Red=Cloning site Blue=ORF Green=Tags(s)

 ${\tt TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC}$

GCCGCGATCGCC

ATGGACACCGGTGTGATTGAAGGTGGATTAAATGTCACTCTCACCATCCGGCTACTTATGCATGGAAAGG
AAGTTGGCAGTATCATCGGAAAGAAAGGAGAATCAGTTAAGAAGATGCGCGAGGAGAGATGTGCACGTAT
CAACATCTCAGAAGGGAATTGTCCTGAGAGAATTATCACTTTGGCTGGACCCACTAATGCCATCTTCAAA
GCCTTTGCTATGATCATTGACAAACTGGAAGAGGACATAAGCAGCTCTATGACCAATAGCACAGCTGCCA
GTAGACCCCCGGTCACCCTGAGGCTGGTGGTCCCTGCTAGTCAGTGTGGCTCTCTCATTGGAAAAGGTGG
ATGCAAGATCAAGGAAATACGAGAGAGTACAGGGGCTCAGGTCCAGGTGGCAGGGGATATGCTACCCAAC
TCAACTGAGCGGGCCATCACTATTGCTGGCATTCCACAATCCATCATTGAGTGTGTCAAACAGATCTGCG
TGGTCATGTTGGAGTCCCCCCCGAAGGGCGTGACCATCCCGTACCGGCCCAAGCCGTCCAGCTCTCCGGT
CATCTTTGCAGGTGGTCAGGCCTATACCATTCAAGGACAGTATGCCATTCCACAGCCAGATTTGACCAAG
CTGCACCAGTTGGCAATGCAACAGTCTCATTTTCCCATGACCCATTCCACAGCCGGATTCAGTGCAGGTT
TGGATGCATCTGCTCAGACTACTTCTCATGAACTCACCATTCCAAACGATTTGATTGGCTGCATAATCGG
GCGTCAAGGCGCCAAAATCAATGAGATCCGTCAGATGTCTGGGGCGCAGATCAAAATTGCGAACCCAGTG
GAAGGATCTACTGATAGGCAGGTTACCATCACTGGATCTGCTGCCAGCATTAGCCTGGCTCAATATCTAA
TCAATGTCAGGCTTTCCTCGGAGACGGGTGGCATGGGGAGCAGC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >RG225457 representing NM_001128914

Red=Cloning site Green=Tags(s)

MDTGVIEGGLNVTLTIRLLMHGKEVGSIIGKKGESVKKMREESGARINISEGNCPERIITLAGPTNAIFK AFAMIIDKLEEDISSSMTNSTAASRPPVTLRLVVPASQCGSLIGKGGCKIKEIRESTGAQVQVAGDMLPN STERAITIAGIPQSIIECVKQICVVMLESPPKGVTIPYRPKPSSSPVIFAGGQAYTIQGQYAIPQPDLTK LHQLAMQQSHFPMTHGNTGFSAGLDASAQTTSHELTIPNDLIGCIIGRQGAKINEIRQMSGAQIKIANPV EGSTDRQVTITGSAASISLAQYLINVRLSSETGGMGSS

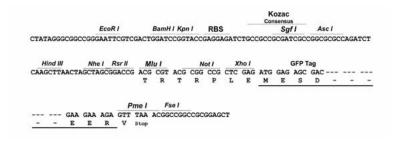
TRTRPLE - GFP Tag - V

Restriction Sites:

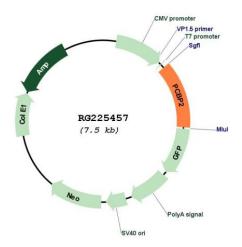
Sgfl-Mlul

Cloning Scheme:





Plasmid Map:



ACCN: NM_001128914

ORF Size: 954 bp

PCBP2 (NM_001128914) Human Tagged ORF Clone - RG225457

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: <u>NM 001128914.1</u>, <u>NP 001122386.1</u>

RefSeq Size: 3043 bp
RefSeq ORF: 957 bp
Locus ID: 5094
UniProt ID: Q15366

Cytogenetics: 12q13.13

Gene Summary: The protein encoded by this gene appears to be multifunctional. Along with PCBP-1 and

hnRNPK, it is one of the major cellular poly(rC)-binding proteins. The encoded protein contains three K-homologous (KH) domains which may be involved in RNA binding. Together with PCBP-1, this protein also functions as a translational coactivator of poliovirus RNA via a sequence-specific interaction with stem-loop IV of the IRES, promoting poliovirus RNA replication by binding to its 5'-terminal cloverleaf structure. It has also been implicated in translational control of the 15-lipoxygenase mRNA, human papillomavirus type 16 L2 mRNA, and hepatitis A virus RNA. The encoded protein is also suggested to play a part in formation of a sequence-specific alpha-globin mRNP complex which is associated with alpha-globin mRNA stability. This multiexon structural mRNA is thought to be retrotransposed to generate PCBP-1, an intronless gene with functions similar to that of PCBP2. This gene and PCBP-1 have paralogous genes (PCBP3 and PCBP4) which are thought to have arisen as a result of duplication events of entire genes. This gene also has two processed pseudogenes (PCBP2P1 and PCBP2P2). Multiple transcript variants encoding different isoforms have been found for

this gene. [provided by RefSeq, Jan 2018]