

## Product datasheet for **RC217216**

### Angiopoietin 2 (ANGPT2) (NM\_001147) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Angiopoietin 2 (ANGPT2) (NM_001147) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	ANGPT2
Synonyms:	AGPT2; ANG2
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



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ORF Nucleotide  
Sequence:

>RC217216 representing NM\_001147  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCCGCGATCGCC

ATGTGGCAGATTGTTTTCTTACTCTGAGCTGTGATCTTGTCTTGGCCGAGCCTATAACAACCTTCGGA  
AGAGCATGGACAGCATAGGAAAGAAGCAATATCAGGTCCAGCATGGGTCCTGCAGCTACACTTTCCTCCT  
GCCAGAGATGGACAACCTGCCGCTCTTCTCCAGCCCTACGTGTCCAATGCTGTGCAGAGGGACGCGCCG  
CTCGAATACGATGACTCGGTGCAGAGGCTGCAAGTGTGGAGAACATCATGAAAAACAACACTCAGTGGC  
TAATGAAGCTTGAGAATTATATCCAGGACAACATGAAGAAAGAAATGGTAGAGATACAGCAGAATGCAGT  
ACAGAACCAGACGGCTGTGATGATAGAAATAGGACAAACCTGTTGAACCAAACAGCTGAGCAAACGCGG  
AAGTTAACTGATGTGGAAGCCCAAGTATTAATCAGACCAGGACTTGAACCTCAGCTCTTGGAACT  
CCCTCTCGACAAACAAATGGAAAAACAGATTTTGGACCAGACCAGTGAATAAACAAATGCAAGATAA  
GAACAGTTTCTAGAAAAGAAGGTGCTAGCTATGGAAGACAAGCACATCATCCAACCTACAGTCAATAAAA  
GAAGAGAAAGATCAGCTACAGGTGTAGTATCCAAGCAAAATTCATCATTGAAGAACTAGAAAAA  
TAGTGACTGCCACGGTGAATAATTCAGTTCTTCAAAGCAGCAACATGATCTCATGGAGACAGTTAATAA  
CTTACTGACTATGATGTCCACATCAAACCTCAGCTAAGGACCCACTGTTGCTAAAGAAGAACAATCAGC  
TTCAGAGACTGTGCTGAAGTATTCAAATCAGGACACACCACAAATGGCATCTACACGTTAACATTCCTTA  
ATTCTACAGAAGAGATCAAGGTCTACTGTGACATGGAAGCTGGAGGAGCGGGTGGACAATTATTCAGCG  
ACGTGAGGATGGCAGCGTTGATTTTTCAGAGGACTTGGAAAGAAATAAAGTGGGATTTGGTAACCTTCA  
GGAGAATATTGGCTGGGAAATGAGTTTGTTCGCAACTGACTAATCAGCAACGCTATGTGCTTAAATAC  
ACCTTAAAGACTGGGAAGGGAATGAGGCTTACTATTGTATGAACATTTCTATCTCAAGTGAAGAAT  
CAATTATAGGATTCACCTTAAAGGACTTACAGGACAGCCGCAAAATAAGCAGCATCAGCCAACCAGGA  
AATGATTTTAGCACAAGGATGGAGACAACGACAAATGTATTTGCAAATGTTACAAATGCTAACAGGAG  
GCTGGTGGTTTGTGATGATGTGCTCCTTCCAACCTGAACGGAATGTACTATCCACAGAGGCAGAACACAAA  
TAAGTTCAACGCATTAATGGTACTACTGAAAGGCTCAGGCTATTCGCTCAAGGCCACAACCATGATG  
ATCCGACCAGCAGATTTT

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA

## Protein Sequence:

>RC217216 representing NM\_001147  
Red=Cloning site Green=Tags(s)

MWQIVFFTLSCDLVLAAYNNFRKSMDSIGKKQYQVQHSGSYTFLLPEMDCRSSSSPYVSNVQRDAP  
LEYDSSVQRLQVLENIENNTQWLMKLENYIQDNMKEMVEIQQNAVQNTAVMIEIGTNLLNQTAEQTR  
KLT DVEAQLNQTTRELEQLLEHSLSTNKLEKQILDQTSINKLQDKNSFLEKKVLAMEDKHIIQLQSIK  
EEKDQLQVLVSKQNSIIIEELEKKIVTAVNNSVLQKQHDLMETVNNLLTMMSTNSAKDPTVAKEEQIS  
FRDCAEVFKSGHTTNGIYTLTFPNSTEEIKAYCDMEAGGGWTIIQRREDGSVDFQRTWKEYKVGFGNPS  
GEYWLGNFVSQLTNQRYVLKIHLDKWEAGNEAYSLYEHFYLSEELNYRIHLKGLTGTAGKISSISQPG  
NDFSTKDGDNDKCIKCSQMLTGGWFDACGPSNLNGMYYPQRQNTNKFNGIKWYWKSGSYSLKATMM  
IRPADF

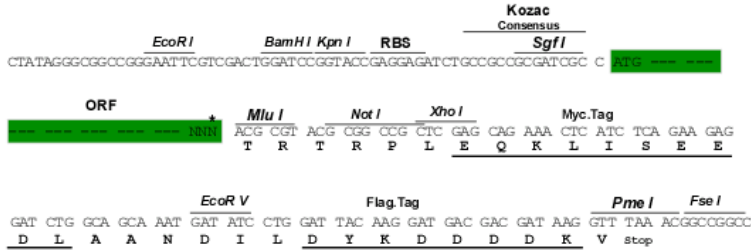
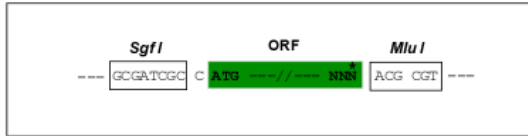
TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

## Restriction Sites:

SgfI-MluI

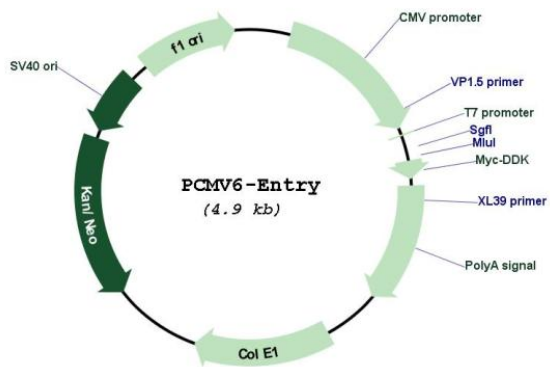
Cloning Scheme:

Cloning sites used for ORF Shutting:



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

Plasmid Map:



ACCN: NM\_001147

ORF Size: 1488 bp

**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](mailto: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.

**RefSeq:** [NM\\_001147.1](#), [NM\\_001147.2](#), [NP\\_001138.1](#)

**RefSeq Size:** 2269 bp

**RefSeq ORF:** 1491 bp

**Locus ID:** 285

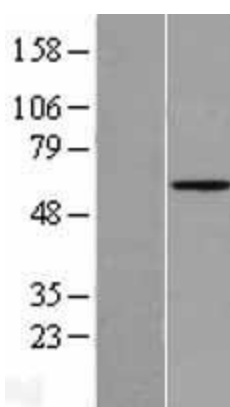
**Domains:** FBG

**Protein Families:** Druggable Genome, Secreted Protein

**MW:** 56.95 kDa

**Gene Summary:** The protein encoded by this gene is an antagonist of angiotensin 1 (Ang-1), and both (Ang-1 and Ang-2) are ligands for the endothelial tyrosine kinase receptor (Tie2). These two ligands affect angiogenesis during embryogenesis and tumorigenesis. The encoded protein disrupts the vascular remodeling ability of Ang-1 and may induce endothelial cell apoptosis. Three transcript variants encoding three different isoforms have been found for this gene. [provided by RefSeq, Nov 2019]

### Product images:



Western blot validation of overexpression lysate (Cat# [LY400459]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC217216 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).