

## Product datasheet for **RC225853**

### Angiopoietin 2 (ANGPT2) (NM\_001118887) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Angiopoietin 2 (ANGPT2) (NM_001118887) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	ANGPT2
Synonyms:	AGPT2; ANG2; LMPHM10
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



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**ORF Nucleotide Sequence:**

>RC225853 representing NM\_001118887  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGTGGCAGATTGTTTTCTTACTCTGAGCTGTGATCTTGTCTTGCCGACGCTATAACAACCTTCGGA  
 AGAGCATGGACAGCATAGGAAAGAAGCAATATCAGGTCCAGCATGGGTCCTGCAGCTACACTTTCCTCCT  
 GCCAGAGATGGACAACCTGCCGCTCTTCCCTCAGCCCTACGTGTCCAATGCTGTGCAGAGGGACGCGCCG  
 CTCGAATACGATGACTCGGTGCAGAGGCTGCAAGTGTGGAGAACATCATGAAAAACAACACTCAGTGGC  
 TAATGAAGCTTGAGAATTATCCAGGACAACATGAAGAAAGAAATGGTAGAGATACAGCAGAATGCAGT  
 ACAGAACCAGACGGCTGTGATGATAGAAATAGGGACAACCTGTTGAACCAACAGCGGAGCAAACGCGG  
 AAGTTAACTGATGTGGAAGCCCAAGTATTAATCAGACCAGAGACTTGAACCTCAGCTCTTGGAACT  
 CCCTCTCGACAAACAAATGGAAAAACAGATTTGGACCAGACCAGTAAATAACAAATGCAAGATAA  
 GAACAGTTTCTAGAAAAGAAGGTGCTAGCTATGGAAGACAAGCACATCATCCAACACTACAGTCAATAAAA  
 GAAGAGAAAGATCAGCTACAGGTGTTAGTATCCAAGCAAAATCCATCATTGAAGAACTAGAAAAA  
 TAGTGACTGCCACGGTGAATAATTCAGTTCTTCAAGCAGCAACATGATCTCATGGAGACAGTTAATAA  
 CTTACTGACTATGATGTCCACATCAAACCTAAGGACCCCACTGTTGCTAAAGAAGAACAATCAGCTTC  
 AGAGACTGTGCTGAAGTATTCAAATCAGGACACACCACGAATGGCATCTACACGTTAACATTCCTAATT  
 CTACAGAAGAGATCAAGGCTACTGTGACATGGAAGCTGGAGGAGCGGGTGGACAATTATTCAGCGACG  
 TGAGGATGGCAGCGTTGATTTTCAGAGGACTTGGAAAGAATATAAAGTGGGATTTGGTAACCTTCAGGA  
 GAATATTGGCTGGGAAATGAGTTTGTTCGCAACTGACTAATCAGCAACGCTATGTGCTTAAATAACACC  
 TTAAGACTGGGAAGGGAATGAGCTTACTCATTGTATGAACATTTCTATCTCAAGTGAAGAACTCAA  
 TTATAGGATTCACCTTAAAGGACTTACAGGACAGCCGGCAAAATAAGCAGCATCAGCAACAGGAAAT  
 GATTTTAGCACAAGGATGGAGACAACGACAAATGATTTGCAAAATGTTCAAAATGCTAACAGGAGGCT  
 GGTGGTTTGTGATGATGGTCTTCCAACCTGAAACGGAATGACTATCCACAGAGGCAGAACACAAATAA  
 GTTCAACGGCATTAAATGGTACTACTGGAAGGCTCAGGCTATTCGCTCAAGGCCACAACCATGATGATC  
 CGACCAGCAGATTTTC

**ACCGGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC225853 representing NM\_001118887  
 Red=Cloning site Green=Tags(s)

MWQIVFFTLSCDLVLAAYNNFRKSMDSIGKKQYVQVHGSCSYTFLLPEMDNCRSSSSPYVSNVQRDAP  
 LEYDSSVQRLQVLENIENNTQWLMKLENYIQDNMKKEMVEIQQNAVQNTAVMIEIGTNLLNQTAEQTR  
 KLTDV EAQVLNQTRLELQLLEHSLSTNKLEKQILDQTSEINKLQDKNSFLEKKVLAMEDKHIIQLQSIK  
 EEKDLQVLVSKQNSIIIELEKKIVTATVNNSVLQKQHDLMETVNLLTMMSTSNKDPVAKKEEQISF  
 RDCAEVFKSGHTTNGIYTLTFPNSTEEIKAYCDMEAGGGWTIIQRREDGSVDFQRTWKEKVGFGNPSG  
 EYWLGNFVSQLTNQRYVLKIHLDKDWEGNEAYSLEYHFLSSEELNYRIHLKGLTGTAGKISSISQPGN  
 DFSTKDGDNKCIKCSQMLTGGWFDACGPSNLNGMYYPQRQNTNKFNGIKWYWKGSYSLKATTMMI  
 RPAF

**TR**TRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:**

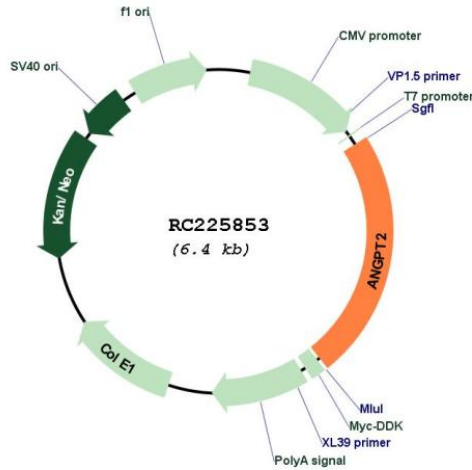
SgfI-MluI

## Cloning Scheme:

Cloning sites used for ORF Shuttling:



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

**Plasmid Map:**


**ACCN:** NM\_001118887

**ORF Size:** 1485 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:** [NM\\_001118887.2](#)

**RefSeq Size:** 5267 bp

**RefSeq ORF:** 1488 bp

**Locus ID:** 285

**UniProt ID:** [O15123](#)

**Cytogenetics:** 8p23.1

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

**MW:** 56.8 kDa

**Gene Summary:** This gene belongs to the angiotensin family of growth factors. The protein encoded by this gene is an antagonist of angiotensin 1, and both angiotensin 1 and angiotensin 2 are ligands for the endothelial TEK receptor tyrosine kinase. Angiotensin 2 is upregulated in multiple inflammatory diseases and is implicated in the direct control of inflammation-related signaling pathways. The encoded protein affects angiogenesis during embryogenesis and tumorigenesis, disrupts the vascular remodeling ability of angiotensin 1, and may induce endothelial cell apoptosis. This gene serves a prognostic biomarker for acute respiratory distress syndrome. [provided by RefSeq, Aug 2020]