

## Product datasheet for **RG225853**

### 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:	TurboGFP
Symbol:	ANGPT2
Synonyms:	AGPT2; ANG2; LMPHM10
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>RG225853 representing NM\_001118887  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGTGGCAGATTGTTTTCTTACTCTGAGCTGTGATCTTGTCTTGCCCGCAGCCTATAACAACCTTCGGA  
 AGAGCATGGACAGCATAGGAAAGAAGCAATATCAGGTCCAGCATGGGTCCTGCAGCTACACTTTCCTCCT  
 GCCAGAGATGGACAACCTGCCGCTCTTCCCTCAGCCCTACGTGTCCAATGCTGTGCAGAGGGACGCGCCG  
 CTCGAATACGATGACTCGGTGCAGAGGCTGCAAGTGTGGAGAACATCATGAAAAACAACACTCAGTGCC  
 TAATGAAGCTTGAGAATTATCCAGGACAACATGAAGAAAGAAATGGTAGAGATACAGCAGAATGCAGT  
 ACAGAACCAGACGGCTGTGATGATAGAAATAGGGACAACCTGTTGAACCAAACAGCGGAGCAAACGCGG  
 AAGTAACTGATGTGGAAGCCCAAGTATTAATCAGACCAGAGACTTGAACCTCAGCTCTTGGAACT  
 CCCTCTCGACAAACAAATGGAAAAACAGATTTGGACCAGACCAGTAAATAACAAATGCAAGATAA  
 GAAGAGAAAGATCAGCTACAGGTGTTAGTATCCAAGCAAAATCCATCATTGAAGAACTAGAAAAA  
 TAGTGACTGCCACGGTGAATAATTCAGTCTTCCAGAAGCAGCAACATGATCTCATGGAGACAGTTAATA  
 CTTACTGACTATGATGTCCACATCAAACCTAAGGACCCCACTGTTGCTAAAGAAGAACAATCAGCTTC  
 AGAGACTGTGCTGAAGTATTCAAATCAGGACACACCACGAATGGCATCTACACGTTAACATTCCTAATT  
 CTACAGAAGAGATCAAGGCTACTGTGACATGGAAGCTGGAGGAGCGGGTGGACAATTATTCAGCGACG  
 TGAGGATGGCAGCGTTGATTTTCAGAGGACTTGGAAAGAATATAAAGTGGGATTTGGTAACCCCTCAGGA  
 GAATATTGGCTGGGAAATGAGTTTGTTCGCAACTGACTAATCAGCAACGCTATGTGCTTAAAATACACC  
 TTAAGACTGGGAAGGGAATGAGGCTTACTCATTGTATGAACATTTCTATCTCAAGTGAAGAACTCAA  
 TTATAGGATTCACCTTAAAGGACTTACAGGACAGCCGGCAAAATAAGCAGCATCAGCAACCAGGAAAT  
 GATTTTAGCACAAAGGATGGAGACAACGACAAATGATTTGCAAAATGTTCAAAATGCTAACAGGAGGCT  
 GGTGGTTTGTGATGTGGTCTTCCAACCTGAAACGGAATGACTATCCACAGAGGCAGAACACAAATAA  
 GTTCAACGGCATTAAATGGTACTACTGAAAGGCTCAGGCTATTCGCTCAAGGCCACAACCATGATGATC  
 CGACCAGCAGATTTTC

**ACGCGTACGCGGCCGCTCGAG** – GFP Tag – GTTTAA

**Protein Sequence:**

>RG225853 representing NM\_001118887  
 Red=Cloning site Green=Tags(s)

MWQIVFFTLSCDLVLAAYNNFRKSMDSIGKKQYVQVHGSCSYTFLLPEMDCRSSSSPYVSNVQRDAP  
 LEYDSSVQRLQVLENIENNTQWLMKLENYIQDNMKKEMVEIQQNAVQNTAVMIEIGTNLLNQTAEQTR  
 KLTDVEAQVLNQTTRELEQLLEHSLSTNKLEKQILDQTSEINKLQDKNSFLEKKVLAMEDKHIIQLQSIK  
 EEKDLQVLVSKQNSIIIEELEKKIVTATVNNSVLQKQHDLMETVNNLLTMMSTSNKDPYVAKEEQISF  
 RDCAEVFKSGHTTNGIYTLTFPNSTEEIKAYCDMEAGGGWTIIQRREDGSVDFQRTWKEYKVGFGNPSG  
 EYWLGNEFVSQLTNQRYVLKIHLDKDWEGNEAYSLYEHFYLSSSEELNYRIHLKGLTGTAGKISSISQPGN  
 DFSTKDGNDKICKCSQMLTGGWWFDACGPSNLNGMYYPQRQNTNKFNGIKWYWKGSYSLKATMMI  
 RPADF

**TRTRPLE** – GFP Tag – V

**Restriction Sites:**

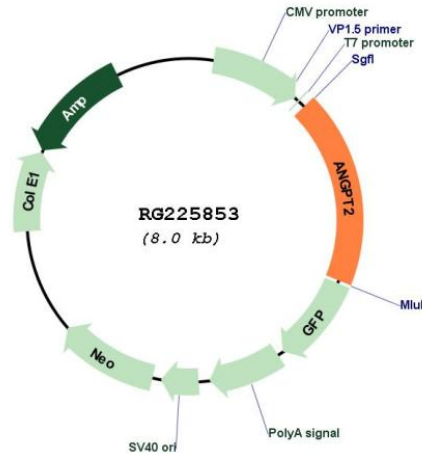
Sgfl-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:



EcoRI BamHI KpnI RBS Kozac Consensus SgfI AscI  
 CTATAGGGCGGCCGGGAATTCGTGACTGGATCCGGTACCGAGSAGATCTGCCGCCGATCGCCGGCGCCAGATCT  
  
 HindIII NheI RsrII MluI NotI XhoI GFP Tag  
 CAAGCTTAACTAGCTAGCGGACCG ACG CGT ACG CGG CCG CTC GAG ATG GAG AGC GAC --- --- ---  
 T R T R P L E M E S D - - -  
  
 PmeI FseI  
 --- --- GAA GAA AGA GTT TAA ACGGCCGGCCGGGAGCT  
 - - - E E R V Stop

**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

**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]