

## Product datasheet for **RC205081**

### Annexin A2 (ANXA2) (NM\_001002857) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Annexin A2 (ANXA2) (NM_001002857) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	ANXA2
Synonyms:	ANX2; ANX2L4; CAL1H; HEL-S-270; LIP2; LPC2; LPC2D; P36; PAP-IV
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC205081 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGGATCGCC**

ATGTCTACTGTTACGAAATCCTGTGCAAGCTCAGCTTGGAGGGTGATCACTCTACACCCCAAGTGCAT  
ATGGGTCTGTCAAAGCCTATACTAACTTTGATGCTGAGCGGGATGCTTTGAACATTGAAACAGCCATCAA  
GACCAAAGGTGTGGATGAGGTCACCATTGTCAACATTTTGACCAACCGCAGCAATGCACAGAGACAGGAT  
ATTGCCTTCGCCTACCAGAGAAGGACAAAAAGGAACTTGCATCAGCACTGAAGTCAGCCTTATCTGGCC  
ACCTGGAGACGGTGATTTTGGCCCTATTGAAGACACCTGCTCAGTATGACGCTTCTGAGCTAAAAGCTTC  
CATGAAGGGGCTGGAAACCGACGAGGACTCTCATTGAGATCATCTGCTCCAGAACCAACCAGGAGCTG  
CAGGAAATTAACAGAGTCTACAAGGAAATGTACAAGACTGATCTGGAGAAGGACATTATTTCCGGACACAT  
CTGGTGACTTCCGCAAGCTGATGGTTGCCCTGGCAAAGGGTAGAAGAGCAGAGGATGGCTCTGTCATTGA  
TTATGAACTGATTGACCAAGATGCTCGGGATCTCTATGACGCTGGAGTGAAGAGGAAAGGAACTGATGTT  
CCCAAGTGGATCAGCATCATGACCGAGCGGAGCGTGCCCCACCTCCAGAAAGTATTTGATAGGTACAAGA  
GTTACAGCCCTTATGACATGTTGGAAAGCATCAGGAAAGAGGTTAAAGGAGACCTGGAAAATGCTTTCT  
GAACCTGGTTCAGTGCATTGAGAAAGCCCTGTATTTTGTGATCGGCTGTATGACTCCATGAAGGGC  
AAGGGGACGCGAGATAAGGTCCTGATCAGAATCATGGCCCTCCCGCAGTGAAGTGGACATGTTGAAAATTA  
GGTCTGAATTCAGAGAAAGTACGGCAAGTCCCTGTACTATTATATCCAGCAAGACACTAAGGGCGACTA  
CCAGAAAGCGCTGCTGTACCTGTGTGGTGGAGATGAC

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >RC205081 protein sequence  
 Red=Cloning site Green=Tags(s)

MSTVHEILCKLSLEGDHSTPPSAYGVSVKAYTNFDAERDALNIETAIKTKGVDEVTIVNILTNRNSNAQRQD  
 IAFAYQRRTKKELASALKSALSGHLETVILGLLKTPAQYDASELKASMKGLGTDEDSLIEIICSRTNQEL  
 QEINRVYKEMYKTDLEKDIISDTSGDFRKL MVALAKGRR AEDGSVIDYELIDQDARDLYDAGVKRKGTDV  
 PKWISIMTERSVPHLQKVFDRYKSYSPYDML ESIRKEVKGDLENAFLNLVQCIQNKPLYFADRLYDSMKG  
 KGTRDKVLIIRIMASRSEVDMLKIRSEFKRKYGKSLYYYYIQQDTKGDYQKALLYLCGGDD

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

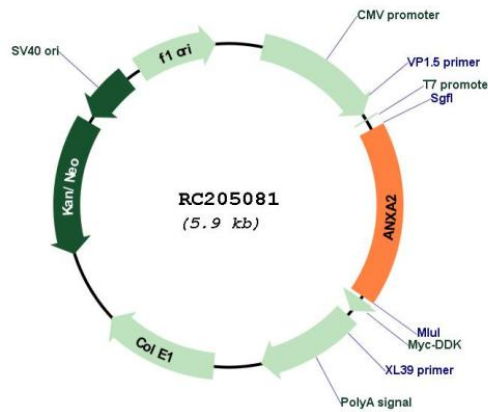
**Chromatograms:** [https://cdn.origene.com/chromatograms/mk6549\\_f03.zip](https://cdn.origene.com/chromatograms/mk6549_f03.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**Plasmid Map:**

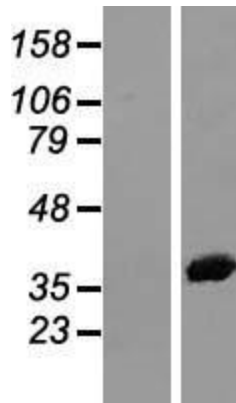


**ACCN:** NM\_001002857

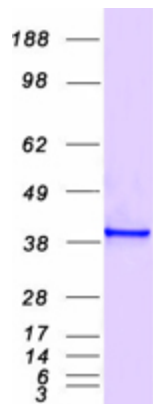
<b>ORF Size:</b>	1017 bp
<b>OTI Disclaimer:</b>	<p>Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid 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 <a href="mailto:custsupport@origene.com">custsupport@origene.com</a> or by calling 301.340.3188 option 3 for pricing and delivery.</p> <p>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. <a href="#">More info</a></p>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"> <li>1. Centrifuge at 5,000xg for 5min.</li> <li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li> <li>3. Close the tube and incubate for 10 minutes at room temperature.</li> <li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li> <li>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.</li> </ol>
<b>RefSeq:</b>	<a href="#">NM_001002857.1</a> , <a href="#">NP_001002857.1</a>
<b>RefSeq Size:</b>	1644 bp
<b>RefSeq ORF:</b>	1020 bp
<b>Locus ID:</b>	302
<b>UniProt ID:</b>	<a href="#">P07355</a>
<b>Cytogenetics:</b>	15q22.2
<b>Protein Families:</b>	Druggable Genome, Secreted Protein, Stem cell - Pluripotency
<b>MW:</b>	38.6 kDa

**Gene Summary:**

This gene encodes a member of the annexin family. Members of this calcium-dependent phospholipid-binding protein family play a role in the regulation of cellular growth and in signal transduction pathways. This protein functions as an autocrine factor which heightens osteoclast formation and bone resorption. This gene has three pseudogenes located on chromosomes 4, 9 and 10, respectively. Multiple alternatively spliced transcript variants encoding different isoforms have been found for this gene. Annexin A2 expression has been found to correlate with resistance to treatment against various cancer forms. [provided by RefSeq, Dec 2019]

**Product images:**


Western blot validation of overexpression lysate (Cat# [LY427764]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with [RC227328] using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified ANXA2 protein (Cat# [TP305081]). The protein was produced from HEK293T cells transfected with ANXA2 cDNA clone (Cat# RC205081) using MegaTran 2.0 (Cat# [TT210002]).