

## Product datasheet for **MR210755**

### **Ace2 (NM\_001130513) Mouse Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	Ace2 (NM_001130513) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Ace2
Synonyms:	2010305L05Rik
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide  
Sequence:**

>MR210755 ORF sequence  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGTCCAGCTCCTCTGGCTCCTTCTCAGCCTTGTGCTTACTACTGCTCAGTCCCTCACCGAGGAAA  
 ATGCCAAGACATTTTTAAACAACCTTAATCAGGAAGCTGAAGACCTGTCTTATCAAAGTTCACTTGCTTC  
 TTGGAATTATAACTAACATTACTGAAGAAAATGCCAAAAGATGAGTGAGGCTGCAGCCAAATGGTCT  
 GCCTTTTATGAAGAACAGTCTAAGACTGCCAAAGTTTCTCACTACAAGAAATCCAGACTCCGATCATCA  
 AGCGTCAACTACAGGCCCTTCAGCAAAGTGGTCTTCAGCACTCTCAGCAGACAAGAACAACAGTTGAA  
 CACAATTCTGAACACCATGAGCACCATTACAGTACTGGAAGTTTGAACCCAAAGAACCACAAGAA  
 TGCTTATTACTTGAGCCAGGATTGGATGAAATAATGGCGACAAGCACAGACTACAACCTAGGCTCTGGG  
 CATGGGAGGGCTGGAGGGCTGAGGTTGGCAAGCAGCTGAGGCCGTTGTATGAAGAGTATGTGGTCTGAA  
 AAACGAGATGGCAAGAGCAAACAATTATAACGACTATGGGGATTATTGGAGAGGGGACTATGAAGCAGAG  
 GGAGCAGATGGCTACAACATAAACCCTAACAGTTGATTGAAGATGTAGAACGTACCTTCGAGAGATCA  
 AGCCATTGTATGAGCATCTTCATGCCTATGTGAGGAGGAAGTTGATGGATACCTACCCCTTCTACATCAG  
 CCCACTGGATGCCTCCCTGCCATTTGCTTGGTGATATGTGGGGTAGATTTTGGACAAATCTGTACCCT  
 TTGACTGTTCCCTTTCACAGAAACCAACATAGATGTTACTGATGCAATGATGAATCAGGGCTGGGATG  
 CAGAAAGGATATTTCAAGAGGCAGAGAAATCTTTGTTTCTGTTGGCCTTCTCATATGACTCAAGGATT  
 CTGGGCAAACCTATGCTGACTGAGCCAGCAGATGGCCGAAAGTTGTCTGCCACCCACAGCTTGGGAT  
 CTGGGACACGGAGACTTCAGAATCAAGATGTGTACAAAGTCACAATGGACAACCTTCTGACAGCCATC  
 ACGAGATGGGACACATCCAATATGACATGGCATATGCCAGGCAACCTTTCTGCTAAGAAACGGAGCCAA  
 TGAAGGGTCCATGAAGCTGTTGGAGAAATCATGTCACTTTCTGCAGCTACCCCAAGCATCTGAAATCC  
 ATTGGTCTTCTGCCATCCGATTTTCAAGAAGATAGCGAAACAGAGATAAACTTCTACTGAAACAGGCAT  
 TGACAATTGTTGGAACACTACCGTTTACTTACATGTTAGAGAAGTGGAGGTGGATGGTCTTTCGGGGTGA  
 AATTCCCAAAGAGCAGTGGATGAAAAAGTGGTGGGAGATGAAGCGGGAGATCGTTGGTGTGGTGGAGCCT  
 CTGCCATGATGAAACATACTGTGACCCTGCATCTCTGTTCCATGTTTCTAATGATTACTATTTCATT  
 GATATTACACAAGGACATTTACCAATCCAGTTTCAAGAAGCTCTTGTCAAGCAGCTAAGTATAATGG  
 TTCTCTGCACAAATGTGACATCTCAAATCCACTGAAGCTGGCAGAAGTTGCTCAAGATGCTGAGTCTT  
 GGAAATTCAGAGCCCTGGACAAAGCCTTGAAAAATGTGGTAGGAGCAAGGAATATGGATGTAACCCAC  
 TGCTCAATTAATTCCAACCGTTGTTGACTGGCTGAAAGAGCAGAACAGAAATCTTTTGTGGGGTGGAA  
 CACTGAATGGAGCCCATATGCCGACAAAGCATTAAAGTGAGGATAAGCCTAAAAATCAGCTCTTGGAGCT  
 AATGCATATGAATGGACCAACAACGAAATGTTCCCTGTTCCGATCATCTGTTGCATATGCCATGAGAAAGT  
 ATTTTTCAATAATCAAAAACAGACAGTTCCCTTTCTAGAGGAAGATGTACGAGTGAGTGATTTGAAACC  
 AAGAGTCTCCTTCTACTTCTTTGTCACCTACCCCAAAATGTGTCTGATGTCATTCTAGAAAGTGAAGTT  
 GAAGATGCCATCAGGATGTCTCGGGCCGCATCAATGATGTCTTTGGCCTGAATGATAACAGCCTGGAGT  
 TTCTGGGATTACCCAAACACTTGAGCCACCTTACCAGCCTCTGTCCACATATGGCTGATTATTTTTGG  
 TGTTGTGATGGCACTGGTAGTGGTTGGCATCATCATCTGATTGCTCACTGGCATCAAAGGTGAAAGAAG  
 AAAAAATGAAACAAAAAGAGAAGAGAACCCTTATGACTCGATGGACATTGAAAAGGAGAAAGCAATGCAG  
 GATTCCAAAACAGTGATGATGCTCAGACTTCCTTT

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>MR210755 protein sequence  
 Red=Cloning site Green=Tags(s)

MSSSSWLLL SLVAVTTA QSLTEENAKTFLN NFNQEAEDLSYQSSLASWNYNTNITEENA QKMSEAAAKWS  
 AFYEEQSKTAQSFSLQEIQTP I I KRQLQALQQSGSSALSADKKNQLNTILNTMSTIYSTGKVCNPKNPQE  
 CLLLEPGLDEIMATSTDYNSRLWAWEGWRAE V GKQLRPL YEEYVVLKNEMARANNYNDYGDYWRGDYEA  
 GADGYNYNRNQLIEDVERTFAEIKPLYEHLHAYVRRK LMDTYP SYISPTGCLPAHLLGDMWGRFWT NLYP  
 LTVPFAQKPNIDVTDAMMNQGWDAERIFQEA E KFFVSVGLPHMTQGFWANSMLTEPADGRKVVCHPTAWD  
 LGHGDFRIKMCTKV TMDNFLTAHHEM GHIQYDMAYARQPFLLRNGANEGFHEAVGEIMSL SAATPKHLKS  
 IGLLP SDFQEDSETEINFLLKQAL TIVGTL PFTYMLEKWRWVFRGEIPKEQWMKKWEMKREIVGVVEP  
 LPHDETYCDPASLFHVSNDYSFIRYYTRTIYQFQFQEALCQAAK YNGSLHKCDISNSTEAGQKLLKMLSL  
 GNSEPWTKALENVVGARNMDVKPLLN YFQPLFDWLKEQNRNSFVGWNT EWSPYADQSIKVRISLKSALGA  
 NAYEWTNNEMFLFRSSVAYAMRKYFSI IKNQTVPFLEEDVRVSDLKPRVSFYFFVTSPQNVSDVIPRSEV  
 ED AIRMSRGRINDVFGLNDNSLEFLGIHPTLEPPYQPPVTIWL IIFGVVMALVVVGIIILIVTG I KGRKK  
 KNETKREENPYDSMDIGKGESNAGFQNSDDA QTSF

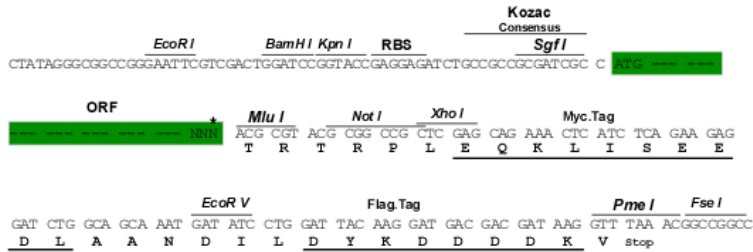
TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

**Restriction Sites:**

Sgfl-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



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

- ACCN:** NM\_001130513
- ORF Size:** 2415 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.

**Note:** Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

**RefSeq:** [NM\\_001130513.1](#), [NP\\_001123985.1](#)

**RefSeq Size:** 3566 bp

**RefSeq ORF:** 2418 bp

**Locus ID:** 70008

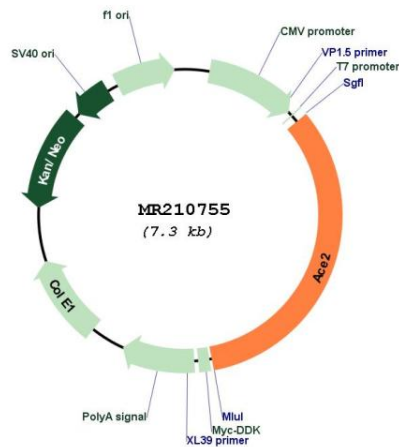
**UniProt ID:** [Q8R0I0](#)

**Cytogenetics:** X 76.12 cM

**MW:** 92.4 kDa

**Gene Summary:** Carboxypeptidase which converts angiotensin I to angiotensin 1-9, a peptide of unknown function, and angiotensin II to angiotensin 1-7, a vasodilator. Also able to hydrolyze apelin-13 and dynorphin-13 with high efficiency. May be an important regulator of heart function. May have a protective role in acute lung injury. Plays an important role in amino acid transport by acting as binding partner of amino acid transporter SLC6A19, regulating its trafficking on the cell surface and its activity (PubMed:19185582).[UniProtKB/Swiss-Prot Function]

### Product images:



Circular map for MR210755