

## Product datasheet for **RC221553**

### AGRP (NM\_007316) Human Tagged ORF Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** AGRP (NM\_007316) Human Tagged ORF Clone  
**Tag:** Myc-DDK  
**Symbol:** AGRP  
**Synonyms:** agouti related protein; AGRT; Agrt; ART; Art; ASIP2; MGC118963; orexigenic neuropeptide  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-Entry (PS100001)  
**E. coli Selection:** Kanamycin (25 ug/mL)  
**ORF Nucleotide Sequence:** >RC221553 ORF sequence  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGCTGACCGCAGCGGTGCTGAGCTGTGCCCTGCTGCTGGCACTGCCTGCCACGCGAGGAGCCAGATGG  
GCTTGGCCCCATGGAGGGCATCAGAAGGCCTGACCAGGCCCTGCTCCCAGAGCTCCAGGCCTGGGCT  
GCGGGCCCCACTGAAGAAGACAAGTGCAGAACAGGCAGAGAGGATCTGTTGCAGGAGGCTCAGGCCTTG  
GCAGAGGTACTAGACCTGCAGGACCGCAGCCCCGCTCCTCACGTGCTGCGTAAGGCTGCATGAGTCTT  
GCCTGGGACAGCAGGTGCCTTGCTGTGACCCATGTGCCACGTGCTACTGCCGCTTCTTAATGCCTTCTG  
CTACTGCCGAAGCTGGTACTGCCATGAATCCCTGCAGCCGCACC

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >RC221553 protein sequence  
Red=Cloning site Green=Tags(s)

MLTAAVLSCALLLALPATRGAQMGLAPMEGIRRPDQALLPELPLGLRAPLKKTTAEQAEEDLLQEAQAL  
AEVLDLQDREPRSSRRCVRLHESCLGQQVPCCDPCATCYCRFFNAFCYCRKLGATAMNPSRT

**TR**TRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk6601\\_d10.zip](https://cdn.origene.com/chromatograms/mk6601_d10.zip)

**Restriction Sites:** SgfI-MluI



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**Cloning Scheme:**


**ACCN:** NM\_007316

**ORF Size:** 396 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\\_007316.1](#), [NP\\_015531.1](#)

**RefSeq Size:** 783 bp

**RefSeq ORF:** 398 bp

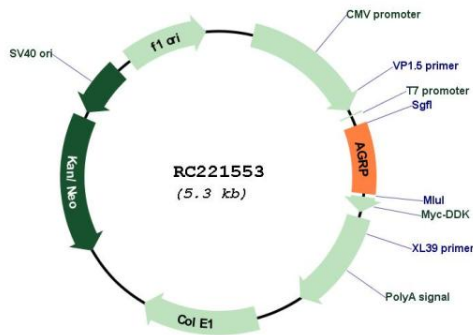
**Locus ID:** 181

**Cytogenetics:** 16q22.1

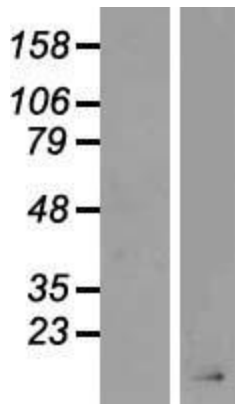
**Protein Families:** Druggable Genome, Secreted Protein  
**Protein Pathways:** Adipocytokine signaling pathway  
**MW:** 14.4 kDa

**Gene Summary:** This gene encodes an antagonist of the melanocortin-3 and melanocortin-4 receptor. It appears to regulate hypothalamic control of feeding behavior via melanocortin receptor and/or intracellular calcium regulation, and thus plays a role in weight homeostasis. Mutations in this gene have been associated with late on-set obesity. [provided by RefSeq, Dec 2009]

**Product images:**



Circular map for RC221553



Western blot validation of overexpression lysate (Cat# [LY416046]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC221553 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).