

## Product datasheet for **RC220053**

### Endothelin 3 (EDN3) (NM\_000114) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Endothelin 3 (EDN3) (NM_000114) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Endothelin 3
Synonyms:	ET-3; ET3; HSCR4; PPET3; WS4B
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC220053 representing NM_000114 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGAGCCGGGGCTGTGGCTCCTTTTCGGGCTCACAGTGACCTCCGCCGAGGATTCGTGCCTTGCTCCC  
AGTCTGGGGATGCTGGCAGGCGCGCGTGTCCCAGGCCCCACTGCAGCCAGATCTGAGGGGACTGTGA  
AGAGACTGTGGCTGGCCCTGGCGAGGAGACTGTGGCTGGCCCTGGCGAGGGGACTGTGGCCCGACAGCA  
CTGCAGGGTCCAAGCCCTGGAAGCCCTGGGAGGAGCAGGCGGCCGAGGGGGCCCTGAGCACCACCGAT  
CCAGGCGCTGCAGTGCTTACCTACAAGGACAAGGAGTGTGTCTACTATTGCCACTGGACATCATTTG  
GATCAACTCCCGAACAGACGGTGCCTATGGACTGTCCAACACAGAGGAAGCTTCCGGGGCAAGAGG  
TCTGCGGGCCACTTCCAGGGAATCTGCAGCTCTCACATCGGCCACACTTGCCTGCGCTTGTGTGGGA  
GATATGACAAGGCCTGCCTGCACCTTTTGCACCCAACTCTGGACGTCAGCAGTAATTCAAGGACGGCAGA  
AAAAACAGACAAAGAAGAGGAAGGGAAGTTGAAGTCAAGGACCAACAAAGCAAGCAGGCTTTAGACCTC  
CACCATCAAAGCTCATGCCCGCAGTGGACTCGCCCTCGCTCCATCTACCTGCCCCGCTGCCTTTTC  
AGGAAGGAGCCCT

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >RC220053 representing NM\_000114  
 Red=Cloning site Green=Tags(s)

MEPGLWLLFGLTVTSAAGFVPCSQSGDAGRRGVSQAPTAARSEGDCEETVAGPGEETVAGPGEETVAPTA  
 LQGPSPGSPGQEQAAEQAPEHRSRRCTCFTYKDKECVYCHLDIIWINTPEQTPVYGLSNYRGSFRGKR  
 SAGPLPGLNLQLSHRPHLRCAVCGRYDKACLHFCTQTLDVSSNSRTAEKTDKEEGKVEVKDQKQALDL  
 HHPKLMPGSGLALAPSTCPRCLFQEGAP

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk6414\\_f04.zip](https://cdn.origene.com/chromatograms/mk6414_f04.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



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

**ACCN:** NM\_000114

**ORF Size:** 714 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\\_000114.2](#), [NP\\_000105.1](#)

**RefSeq Size:** 2438 bp

**RefSeq ORF:** 717 bp

**Locus ID:** 1908

**Cytogenetics:** 20q13.32

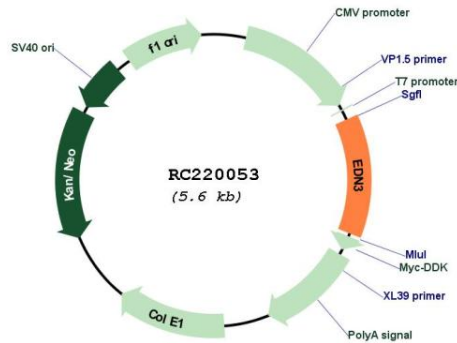
**Domains:** END

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

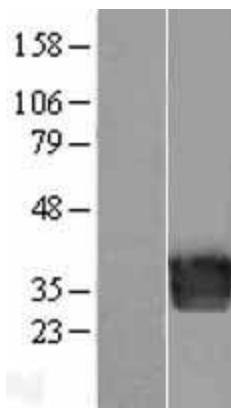
**MW:** 25.45 kDa

**Gene Summary:** The protein encoded by this gene is a member of the endothelin family. Endothelins are endothelium-derived vasoactive peptides involved in a variety of biological functions. The active form of this protein is a 21 amino acid peptide processed from the precursor protein. The active peptide is a ligand for endothelin receptor type B (EDNRB). The interaction of this endothelin with EDNRB is essential for development of neural crest-derived cell lineages, such as melanocytes and enteric neurons. Mutations in this gene and EDNRB have been associated with Hirschsprung disease (HSCR) and Waardenburg syndrome (WS), which are congenital disorders involving neural crest-derived cells. Altered expression of this gene is implicated in tumorigenesis. Alternative splicing results in multiple transcript variants encoding different isoforms. [provided by RefSeq, Oct 2014]

Product images:



Circular map for RC220053



Western blot validation of overexpression lysate (Cat# [LY400036]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC220053 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).