

## Product datasheet for **RC205494**

### Non Neuronal Enolase (ENO1) (NM\_001428) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Non Neuronal Enolase (ENO1) (NM_001428) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	ENO1
Synonyms:	ENO1L1; HEL-S-17; MPB1; NNE; PPH
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>RC205494 ORF sequence  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCCGCGATCGCC

ATGTCTATTCTCAAGATCCATGCCAGGGAGATCTTTGACTCTCGCGGGAATCCACTGTTGAGGTTGATC  
 TCTTCACCTCAAAGGTCTCTTCAGAGCTGCTGTGCCAGTGGTCTCAACTGGTATCTATGAGGCCCT  
 AGAGCTCCGGGACAATGATAAGACTCGCTATATGGGGAAGGGTGTCTCAAAGCTGTTGAGCACATCAAT  
 AAAACTATTGCGCCTGCCTGGTTAGCAAGAACTGAACGTCACAGAACAAGAGAAGATTGACAACTGA  
 TGATCGAGATGGATGGAACAGAAAATAAATCTAAGTTTGGTGCGAACGCCATTCTGGGGGTGCCCTTGC  
 CGTCTGCAAAGCTGGTGCCGTTGAGAAGGGGTCCCCCTGTACCGCCACATCGCTGACTTGGCTGGCAAC  
 TCTGAAGTCATCCTGCCAGTCCCGCGTTCAATGTCATCAATGGCGTTCATGCTGGCAACAAGCTGG  
 CCATGCAGGAGTTCATGATCCTCCAGTCGGTGCAGCAAATTCAGGGAAGCCATGCGCATTGGAGCAGA  
 GGTTTACCACAACCTGAAGAATGTCATCAAGGAGAAATATGGGAAAGATGCCACCAATGTGGGGGATGAA  
 GCGGGGTTTCTCCCAACATCCTGGAGAATAAAGAAGGCCTGGAGCTGTGAAGACTGCTATTGGGAAAG  
 CTGGCTACACTGATAAGGTGGTCATCGGCATGGACGTAGCGGCCTCCGAGTTCTTCAGGTCTGGGAAGTA  
 TGACCTGGACTTCAAGTCTCCCGATGACCCAGCAGGTACATCTCGCCTGACCAGCTGGCTGACCTGTAC  
 AAGTCCTTCATCAAGGACTACCCAGTGGTGTCTATCGAAGATCCCTTTGACCAGGATGACTGGGGAGCTT  
 GGCAGAAGTTCACAGCCAGTGCAGGAATCCAGGTAGTGGGGATGATCTCACAGTGACCAACCCAAAGAG  
 GATCGCCAAGGCCGTGACGAGAAGTCTGCAACTGCCTCCTGCTCAAAGTCAACCAGATTGGCTCCGTG  
 ACCGAGTCTCTTCAGGCGTGAAGCTGGCCAGGCAATGGTTGGGGCGTCATGGTGTCTCATCGTTCGG  
 GGGAGACTGAAGATACCTTCATCGCTGACCTGGTTGTGGGGCTGTGCACCTGGGCAGATCAAGACTGGTGC  
 CCCTTGCCGATCTGAGCGCTTGGCCAAGTACAACCAGCTCCTCAGAATTGAAGAGGAGCTGGGCAGCAAG  
 GCTAAGTTTGCCGGCAGGAATTCAGAAACCCCTTGGCCAAG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC205494 protein sequence  
 Red=Cloning site Green=Tags(s)

MSILKIHAREIFDSRGNPTVEVDLFTSKGLFRAAVPSGASTGIYEALERDNDKTRYMGKGVSKAVEHIN  
 KTIAPALVSKKLVNTEQEKIDKLMIEDGTENKSKFGANAILGVSLAVCKAGAVEKGVPLYRHIADLAGN  
 SEVILPVPFNVINGGSHAGNKLAMQEFMILPVGAAAFREMRIGAEVYHNLKNVIKEKYGDATNVGDE  
 GGFAPNILENKEGLELLKTAIGKAGYTDKVVIGMDVAASEFFRSGKYDLDFKSPDDPSRYISPDQLADLY  
 KSFIDYPVVSIEDPFDQDDWGAWQKFTASAGIQVVGDDLTVTNPKRIAKAVNEKSCNCLLLKVNQIGSV  
 TESLQACKLAQANGWVMVSHRSETEDTFIADLVVGLCTGQIKTGAPCRSERLAKYNQLLRIEEELGSK  
 AKFAGRFRNPLAK

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:**

[https://cdn.origene.com/chromatograms/mk6138\\_d05.zip](https://cdn.origene.com/chromatograms/mk6138_d05.zip)

**Restriction Sites:**

Sgfl-Mlul

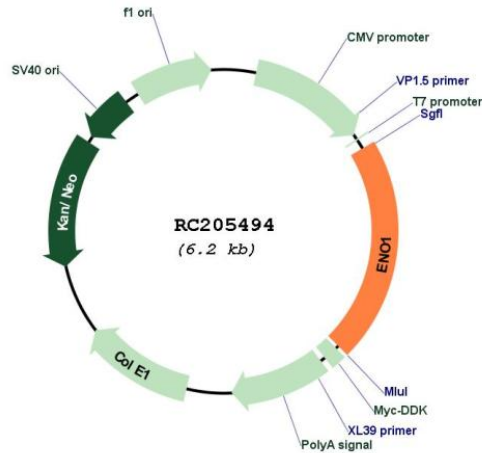
Cloning Scheme:

Cloning sites used for ORF Shuttling:



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

## Plasmid Map:



**ACCN:** NM\_001428

**ORF Size:** 1302 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\\_001428.5](#)

**RefSeq Size:** 2204 bp

**RefSeq ORF:** 1305 bp

**Locus ID:** 2023

**UniProt ID:** [P06733](#)

**Cytogenetics:** 1p36.23

**Domains:** enolase

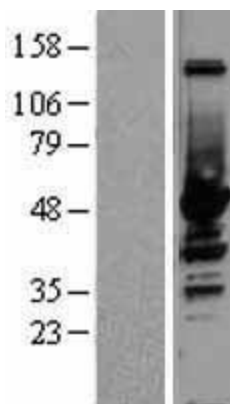
**Protein Families:** Druggable Genome, Transcription Factors

**Protein Pathways:** Glycolysis / Gluconeogenesis, Metabolic pathways, RNA degradation

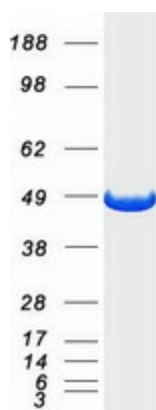
**MW:** 47.2 kDa

**Gene Summary:** This gene encodes alpha-enolase, one of three enolase isoenzymes found in mammals. Each isoenzyme is a homodimer composed of 2 alpha, 2 gamma, or 2 beta subunits, and functions as a glycolytic enzyme. Alpha-enolase in addition, functions as a structural lens protein (tau-crystallin) in the monomeric form. Alternative splicing of this gene results in a shorter isoform that has been shown to bind to the c-myc promoter and function as a tumor suppressor. Several pseudogenes have been identified, including one on the long arm of chromosome 1. Alpha-enolase has also been identified as an autoantigen in Hashimoto encephalopathy. [provided by RefSeq, Jan 2011]

## Product images:



Western blot validation of overexpression lysate (Cat# [LY400561]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC205494 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified ENO1 protein (Cat# [TP305494]). The protein was produced from HEK293T cells transfected with ENO1 cDNA clone (Cat# RC205494) using MegaTran 2.0 (Cat# [TT210002]).