

Product datasheet for **RC201085**

NSE (ENO2) (NM_001975) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	NSE (ENO2) (NM_001975) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	NSE
Synonyms:	HEL-S-279; NSE
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC201085 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGTCCATAGAGAAGATCTGGGCCGGGAGATCTGGACTCCCGCGGGAACCCACAGTGGAGTGGATC
 TCTATACTGCCAAAGGTCTTTCCGGGCTGCAGTGCCAGTGGAGCCTCTACGGGCATCTATGAGGCCCT
 GGAGCTGAGGGATGGAGACAAACAGCGTTACTTAGGCAAAGGTGTCTGAAGGCAGTGGACCACATCAAC
 TCCACCATCGCGCCAGCCCTCATCAGCTCAGGTCTCTGTGGTGGAGCAAGAGAACTGGACAACCTGA
 TGCTGGAGTTGGATGGGACTGAGAACAAATCCAAGTTTGGGGCCAATGCCATCCTGGGTGTCTCTGGC
 CGTGTGTAAGGCAGGGCAGCTGAGCGGGAACGCCCTGTATCGCCACATTGCTCAGCTGGCCGGGAAC
 TCAGACCTCATCTGCCTGTGCCGGCCTCAACGTGATCAATGGTGGCTCTCATGCTGGCAACAAGCTGG
 CCATGCAGGAGTTCATGATCCTCCAGTGGGAGCTGAGAGCTTTCGGGATGCCATGCGACTAGGTGCAGA
 GGTCTACCATACTCAAGGGAGTCATCAAGGACAAATACGGCAAGGATGCCACCAATGTGGGGGATGAA
 GGTGGCTTTCGCCCAATATCCTGGAGAACAGTGAAGCCTTGGAGCTGGTGAAGGAAGCCATCGACAAGG
 CTGGCTACACGGAAAAGATCGTTATTGGCATGGATGTTGCTGCCTCAGAGTTTTATCGTGATGGCAAATA
 TGACTTGGACTTCAAGTCTCCACTGATCCTTCCCGATACATCACTGGGGACCAGCTGGGGGCACTCTAC
 CAGGACTTTGTCAGGGACTATCCTGTGGTCTCCATTGAGGACCCATTTGACCAGGATGATTGGGCTGCCT
 GGTCCAAGTTCACAGCCAATGTAGGGATCCAGATTGTGGGTGATGACCTGACAGTGACCAACCCAAAACG
 TATTGAGCGGGCAGTGAAGAAAAGGCCTGCAACTGTCTGCTGCTCAAGGTCAACCAGATCGGCTCTGTC
 ACTGAAGCCATCCAAGCGTGAAGCTGGCCAGGAGAATGGCTGGGGGTGATGGTGAGTCATCGCTCAG
 GAGAGACTGAGGACACATTCATTGCTGACCTGGTGGTGGGGCTGTGCACAGGCCAGATCAAGACTGGTGC
 CCGTGCCGTTCTGAACGTCTGGCTAAATACAACCAGCTCATGAGAATTGAGGAAGAGCTGGGGGATGAA
 GCTCGCTTTCGCCGACATAAATTCCGTAATCCCAGTGTGCTG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC201085 protein sequence
 Red=Cloning site Green=Tags(s)

MSIEKIWAREILDSRGNPTVEVDLYTAKGLFRAAVPSGASTGIYEALERDGDQRYLKGKVLKAVDHN
 STIAPALISSGLSVVEQEKLNDLMELELDGTENKSKFGANAILGVSLAVCKAGAAERELPLYRHIAQLAGN
 SDLILPVPFNVINGGSHAGNKLAMQEFMILPVGAESEFRDAMRLGAEVYHTLKGVIKDKYKDATNVGDE
 GGFAPNILENSEALELVKEAIDKAGYTEKIVIGMDVAASEFYRDGKYDLDFKSPTDPSRYITGDQLGALY
 QDFVVDYPPVVSIEDPFDQDDWAWSKFTANVGIQIVGDDLTVTNPKRIERAEEKACNCLLLKVNQIGSV
 TEAIQACKLAQENGWGMVSHRGETEDTFIADLVVGLCTGQIKTGAPCRSERLAKYNQLMRIEELGDE
 ARFAGHNFRNPSVL

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk6150_e10.zip

Restriction Sites:

Sgfl-Mlul

Cloning Scheme:


ACCN: NM_001975

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.

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

RefSeq: [NM_001975.3](#)

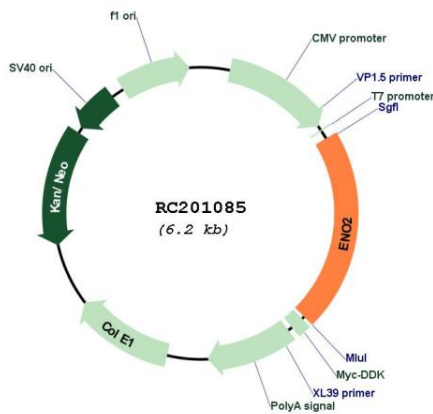
RefSeq Size: 2423 bp

RefSeq ORF: 1305 bp

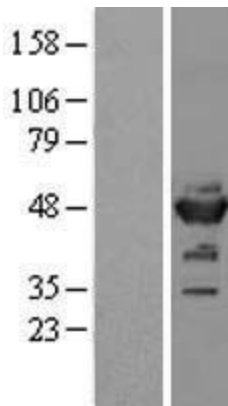
Locus ID: 2026

UniProt ID: [P09104](#)
 Cytogenetics: 12p13.31
 Domains: enolase
 Protein Pathways: Glycolysis / Gluconeogenesis, Metabolic pathways, RNA degradation
 MW: 47.3 kDa
 Gene Summary: This gene encodes one of the three enolase isoenzymes found in mammals. This isoenzyme, a homodimer, is found in mature neurons and cells of neuronal origin. A switch from alpha enolase to gamma enolase occurs in neural tissue during development in rats and primates. [provided by RefSeq, Jul 2008]

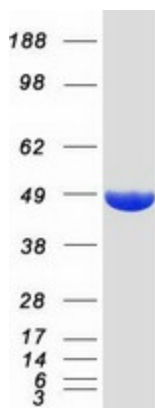
Product images:



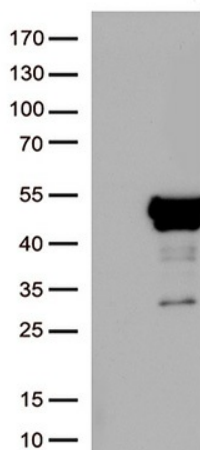
Circular map for RC201085



Western blot validation of overexpression lysate (Cat# [LY400724]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC201085 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified ENO2 protein (Cat# [TP301085]). The protein was produced from HEK293T cells transfected with ENO2 cDNA clone (Cat# RC201085) using MegaTran 2.0 (Cat# [TT210002]).



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY NSE (ENO2) (Cat# RC201085, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-NSE(ENO2) antibody (Cat# [UM800177]) (1:1000).