

Product datasheet for **RC208452**

DHFRL1 (DHFR2) (NM_176815) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: DHFRL1 (DHFR2) (NM_176815) Human Tagged ORF Clone
Tag: Myc-DDK
Symbol: DHFRL1
Synonyms: DHFRL1; DHFRP4
Mammalian Cell Selection: Neomycin
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
ORF Nucleotide Sequence: >RC208452 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGTTTCTTTTGCTAAACTGCATCGTCGCTGTGTCCAAAACATGGGCATCGGCAAGAACGGGGACCTGC
CCAGGCCCGCTCAGGAATGAATTCAGGTATTTCCAGAGAATGACCACAACCTTTCAGTAGAGGGTAA
ACAGAATCTGGTGATTATGGGTAGGAAGACCTGGTCTCCATTCTGAGAAGAATCGACCTTTAAAGGAT
AGAATTAATTTAGTTCTCAGCAGAGAACTAAAGGAACCTCCACAAGGAGCTCATTTTCTGCCAGAAGTT
TGGATGATGCCTAAAACCTTACTGAACGACCAGAATTAGCAAATAAAGTAGACATGATTTGGATAGTTGG
TGGCAGTTCTGTTTATAAGGAAGCCATGAATCACCTAGGCCATCTAAACTATTTGTGACAAGGATCATG
CAGGACTTTGAAAGTGACACGTTTTTTTTCAGAAATTGACTTGGAGAAATATAAACTTCTGCCTGAATACC
CAGGTGTTCTCTGATGTCCAGGAGGGGAAACACATCAAGTACAAATTTGAAGTATGTGAGAAGGATGA
T

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC208452 protein sequence
Red=Cloning site Green=Tags(s)

MFLLLN CIVAVSQNMGIGKNGDLPRPPLRNEFRYFQRM TTTSSVEGKQNLVIMGRKTFWFSIPEKNRPLKD
RINLVL SRELKEPPQGAHFLARSLDDALKLTERPELANKVDMIWIVGGSSVYKEAMNHLGHLKLFVTRIM
QDFESDTFFSEIDLEKYKLLPEYPGVLSDVQEGKH IKYKFEVCEKDD

TRTRPLEQKLISEEDLAANDILDYKDDDDKV



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Chromatograms: https://cdn.origene.com/chromatograms/mk6346_a05.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_176815

ORF Size: 561 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_176815.3](#)

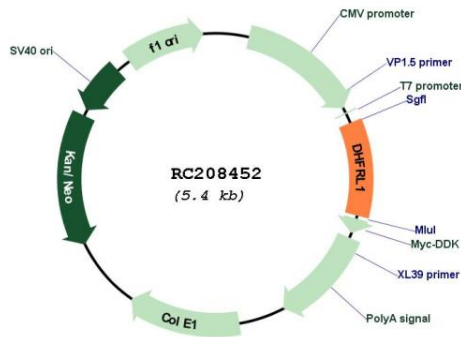
RefSeq Size: 3934 bp

RefSeq ORF: 564 bp

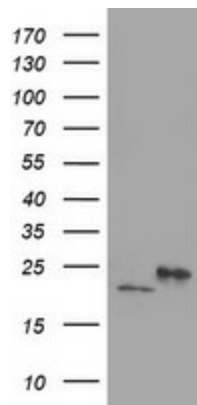
Locus ID: 200895

UniProt ID: [Q86XF0](#)
Cytogenetics: 3q11.2
Protein Families: Druggable Genome
MW: 21.6 kDa
Gene Summary: Key enzyme in folate metabolism. Contributes to the de novo mitochondrial thymidylate biosynthesis pathway. Required to prevent uracil accumulation in mtDNA. Binds its own mRNA and that of DHFR.[UniProtKB/Swiss-Prot Function]

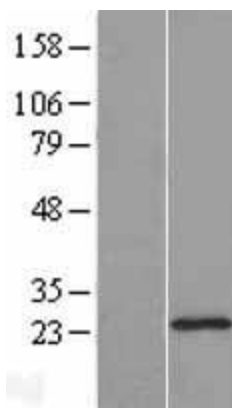
Product images:



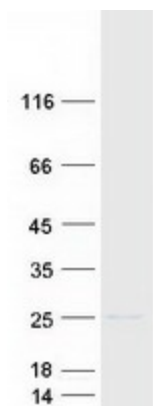
Circular map for RC208452



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY DHFRL1 (Cat# RC208452, 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-DHFRL1(Cat# [TA503259]). Positive lysates [LY406051] (100ug) and [LC406051] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY406051]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC208452 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified DHFR2 protein (Cat# [TP308452]). The protein was produced from HEK293T cells transfected with DHFR2 cDNA clone (Cat# RC208452) using MegaTran 2.0 (Cat# [TT210002]).