

Product datasheet for **RC208573**

FTCD (NM_006657) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	FTCD (NM_006657) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	FTCD
Synonyms:	LCHC1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC208573 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGTCCCAGCTGGTGAATGCGTCCCCAACTTTTCGGAGGGGAAGAACCAGGAGGTGATCGACGCCATCT
 CTGGAGCCATCACACAGACCCCGGGCTGCGTGCTGCTGGATGTGGACGCAGGCCCTCCACCAACCGCAC
 CGTGTACACCTTCGTGGGGCCGCGGAGTGCGTGGTGGAGGGGGCCCTCAACGCTGCCCGGGTAGCTTCC
 CGACTTATCGACATGAGCAGGCACCAAGGAGAGACCCCCGCATGGGGGCCCTAGACGTCTGCCCTTCA
 TCCCCGTGAGGGGCGTCAGCGTGGATGAGTGTGTGCTCTGCGCCAGGCCCTTGGCCAGAGGCTGGCAGA
 GGAGCTGGACGTGCCAGTTACCTGTACGGCGAGGCAGCCAGGATGGACAGTCCCGGACCTGCCGGCC
 ATCCGGGCGGGGAGTACGAGGCCCTCCCTAAGAACTCCAGCAGGCCGACTGGGCGCCGACTTTGGTC
 CCAGCTCCTTTGCCAGTTGGGGGCCACGGCCACGGGGCGAGGAAGTTCTCATTGCTTTTAAAT
 CAACCTGCTCGGCACAAAGGAGCAAGCCACCGCATCGCGCTCAACCTGCGGGAGCAGGGCCGCGGGAAG
 GACCAGCCAGGAGCTCTGAAGAAAGTTCAGGGCATTGGCTGGTACCTGGATGAGAAGAACCTGGCTCAGG
 TGTCCACCAATCTTCTGGACTTTGAGGTCACGGCACTGCACACGGTCTACGAGGAGACCTGCCGAGAAGC
 ACAGGAGCTGAGCCTCCCAGTGGTGGGCTCACAGCTGGTGGGCTGGTGGCCCTGAAGGCTCTGCTGGAT
 GCGGCCGCTTCTACTGCGAGAAGGAGAACCTTTCATCTGGAGGAGGAGCAGCGGATCAGGCTGGTGG
 TGAGCCGGCTGGGCTGGACTCCCTGTGCCCTTCAGCCCTAAGGAGCGGATCATCGAGTACCTGGTCCC
 TGAGCCGGGCTGAGCGAGGCCCTGGGCAGCAAGTCCCTGCGCGCCTTCGTGGGGGAGGTGGGTGCCCGC
 TCTGCGGCCCGGGGGCGGCTCGGTGGCGGCGCCGCTGCGGCCATGGTGGCGGCTGGGCTCCATGG
 TGGGCTCATGACCTACGGGCGGCGCAATTCCAGTCCCTGGACACGACGATGCGGCGCCTGATCCCGCC
 CTTCCGCGAGGCTTCGGCCAAGCTAACCACGCTGGTGGATGCCGACGCCGAGGCCTTCACCGCTACCTG
 GAAGCAATGAGGCTCCCCAAGAACAACCTGAGGAAAAGGACAGGCGCACGGCGGCCCTACAGGAGGTC
 TGAGGCGGGCAGTCTCTGTGCCGCTGACGCTGGCGGAGACGGTGGCTCGCTGTGGCCGGCCTGCAGGA
 ACTGGCCCGGTGTGGAACTGGCTGCCGCTCAGACCTCCAGGTGGCGGCAAGCCCTGGAGATGGGC
 GTGTTTGGCGCATATTTCAACGTGCTCATCAACCTGAGGGACATCACAGACGAGGCATTTAAGGACCAGA
 TCCACCATCGTGTTCAGCCTCTGCAGGAAGCAAGACCCAGGCTGCACTGGTCTGGACTGCTTGA
 GACCCGGCAGGAG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC208573 protein sequence
 Red=Cloning site Green=Tags(s)

MSQLVECVPNFSEGKNQEVIDAISGAITQTPGCVLLDVDAGPSTNRTVYTFVGPPECVVEGALNAARVAS
 RLIDMSRHQGEHPRMGALDVCPIFVVRGVSVDCEVLCAQAFGQRLAEELDVPVYLYGEAARMDSRRTLPA
 IRAGEYEALPKKLQQADWAPDFGPSSFVPSWGATATGARKFLIAFNINLLGTKEQAHRIALNLREQGRK
 DQPGRLLKQVIGWYLDKLNLAQVSTNLLDFEVTALHTVYEETCREAQELSLPVVGSQVLVGLVPLKALLD
 AAAYCEKENLFIIEEQRIQLVVSRLGLDSLCPFSPKERIEIYLVPERGPERGLGSKSLRAVGEVVGAR
 SAAPGGGSVAAAAAMGAALGSMVGLMTYGRRQFQSLDTTMRRLIPPFREASAKLTTLVDADAEAFAYL
 EAMRLPKNTPEEKDRRTAALQEGLRRAVSVPLTLAETVASLWPALQELARCGNLACRSDLQVAAKALEMG
 VFGAYFNVLINLRDITDEAFKQIHHRVSSLLQEAKTQAALVLDCLETRQE

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk6451_c05.zip

Restriction Sites:

SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:



* The last codon before the Stop codon of the ORF

ACCN: NM_006657

ORF Size: 1623 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_006657.1](#)
RefSeq Size: 1921 bp

RefSeq ORF: 1626 bp

Locus ID: 10841

UniProt ID: [O95954](#)

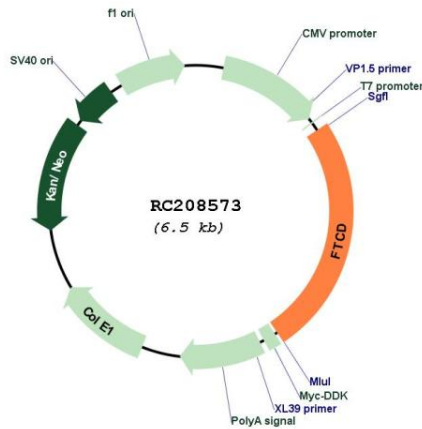
Cytogenetics: 21q22.3

Protein Pathways: Histidine metabolism, Metabolic pathways, One carbon pool by folate

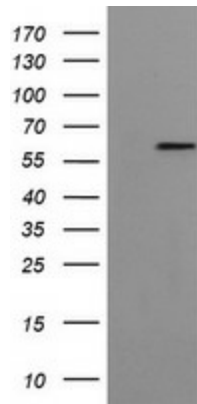
MW: 58.9 kDa

Gene Summary: The protein encoded by this gene is a bifunctional enzyme that channels 1-carbon units from formiminoglutamate, a metabolite of the histidine degradation pathway, to the folate pool. Mutations in this gene are associated with glutamate formiminotransferase deficiency. Alternatively spliced transcript variants have been found for this gene.[provided by RefSeq, Dec 2009]

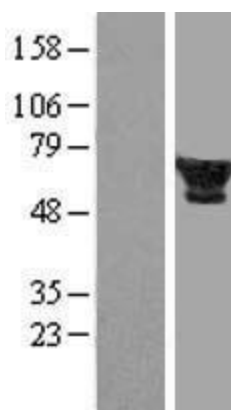
Product images:



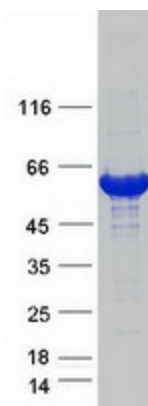
Circular map for RC208573



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY FTCD (Cat# RC208573, 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-FTCD (Cat# [TA505028]). Positive lysates [LY416500] (100ug) and [LC416500] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY404121]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with [RC220581] using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified FTCD protein (Cat# [TP308573]). The protein was produced from HEK293T cells transfected with FTCD cDNA clone (Cat# RC208573) using MegaTran 2.0 (Cat# [TT210002]).