

Product datasheet for **RC202170**

Thymidine Phosphorylase (TYMP) (NM_001953) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Thymidine Phosphorylase (TYMP) (NM_001953) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Thymidine Phosphorylase
Synonyms:	ECGF; ECGF1; hPD-ECGF; MEDPS1; MNGIE; MTDPS1; PDECGF; TP
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC202170 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGCAGCCTTGATGACCCCGGAACCGGGGCCACCCGCGCCTGGTGACTTCTCCGGGAAGGGAGCC
 AGGGACTTCCCGACCTTCGCCAGAGCCCAAGCAGCTCCCGGAGCTGATCCGCATGAAGCGAGACGGAGG
 CCGCCTGAGCGAAGCGGACATCAGGGGCTTCGTGGCCGCTGTGGTGAATGGGAGCGCGCAGGGCGCACAG
 ATCGGGGCCATGCTGATGGCCATCCGACTTCGGGGCATGGATCTGGAGGAGACCTCGGTGCTGACCCAGG
 CCCTGGCTCAGTCGGGACAGCAGCTGGAGTGGCCAGAGGCTGGCGCCAGCAGCTTGTGGACAAGCATT
 CACAGGGGGTGTGGGTGACAAGGTGAGCCTGGTCTCGCACCTGCCCTGGCGGCATGTGGCTGCAAGGTG
 CCAATGATCAGCGGACGTGGTCTGGGGCACACAGGAGGCACCTTGATAAGCTGGAGTCTATTCTGGAT
 TCAATGTCATCCAGAGCCAGAGCAGATGCAAGTCTGCTGGACCAGCGGGCTGCTGTATCGTGGGTCA
 GAGTGAGCAGCTGGTTCCTGCGGAAGGAATCCTATATGCAGCCAGAGATGTGACAGCCACCGTGGACAGC
 CTGCCACTCATCAGACCTCCATTCTCAGTAAGAACTCGTGGAGGGGCTGTCCGCTCTGGTGGTGGACG
 TTAAGTTCGGAGGGGCCCGCTTCCCAACAGGAGCAGGCCCGGGAGCTGGCAAAGACGCTGGTTGG
 CGTGGGAGCCAGCCTAGGGCTTCGGGTTCGGGCAGCGCTGACCGCATGGACAAGCCCTGGGTCTGCTG
 GTGGGCCACGCCCTGGAGGTGGAGGAGGCGCTGCTCTGCATGGACGGCGCAGGCCCGCCAGACTTAAGGG
 ACCTGGTCAACACGCTCGGGGGCGCCCTGCTCTGGCTCAGCGGACACGCGGGGACTCAGGCTCAGGGCGC
 TGCCCGGTGGCCGCGCGCTGGACGACGGCTCGGCCCTGGCCGCTTCGAGCGGATGCTGGCGGCGCAG
 GCGTGGATCCCGGTCTGGCCGAGCCCTGTGCTCGGGAAGTCCCGCAGAACCGCGCAGCTGCTGCCTC
 GCGCCCGGGAGCAGGAGGAGCTGCTGGCGCCGCGCAGATGGACCGTGGAGCTGGTCCGGGCGCTGCCCT
 GGCGTGGTGTGTCACAGAGCTCGGGGCCGGCGCAGCCGCGCTGGGGAGCCGCTCCGCTGGGGGTGGGC
 GCAGAGCTGCTGGTTCGAGTGGGACAGAGGCTGCGCCGTGGGACCCCTGGCTCCGCGTGCACCGGAGC
 GCCCGCGCTCAGCGGCCCGCAGAGCCGCGCCTGCAGGAGGCGCTCGTACTCTCCGACCGCGCCATT
 CGCCGCCCTCGCCCTTCGAGAGCTCGTTCTGCCGCCGAGCAA

ACGCGTACGCGGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC202170 protein sequence
 Red=Cloning site Green=Tags(s)

MAALMTPGTGAPPAPGDFSGEGSQGLPDPSPPEPKQLPELIRMKRDGGRLSEADIRGFVAADVNGSAQGAQ
 IGAMLMAIRLRGMDLEETSVL TQALAQSGQQLWPEAWRQQLVDKHSTGGVGDVSLV LAPALAACGCKV
 PMISGRGLGHTGGTLDKLESIPGFNVIQSPEQMQLLDQAGCCIVGQSEQLVPAEGILYAARDVTATVDS
 LPLITASILSKKLVEGLSALVVDVKFGGAAVFPNQE QARELAKTLVGVGASLGLRVAAL TAMDKPLGRC
 VGHAEVEEALLCMDGAGPPDLRDLVTTLGGALLWL SGHAGTQAQGAARVAAALDDGSALGRFERMLAAQ
 GVDPLARALCSGSPAERRQLLPRAREQEELLAPADGTVELVRALPLALV HELGAGRSRAGEPLRLGVG
 AELLVDVGQRLRRGTPWLRVHRDGPALSGPQSRALQEALVSDRAPFAAPSPFAELVLPQQ

TRTRPLEQ**KL**ISEEDLAANDILDYKDDDDKV

Restriction Sites:

Sgfl-MluI

Cloning Scheme:


ACCN: NM_001953

ORF Size: 1446 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_001953.5](#)

RefSeq Size: 1667 bp

RefSeq ORF: 1449 bp

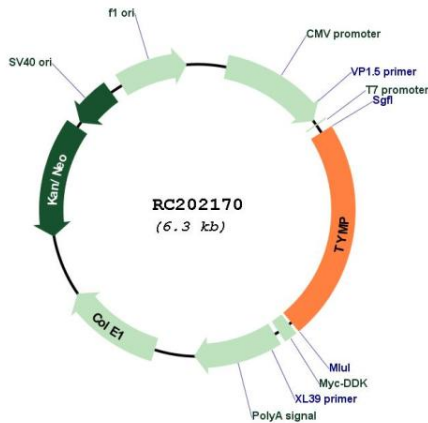
Locus ID: 1890

UniProt ID: [P19971](#)

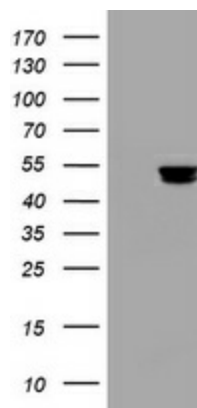
Cytogenetics: 22q13.33
Domains: Glycos_trans_3N
Protein Families: Druggable Genome
Protein Pathways: Bladder cancer, Drug metabolism - other enzymes, Metabolic pathways, Pyrimidine metabolism
MW: 50 kDa

Gene Summary: This gene encodes an angiogenic factor which promotes angiogenesis in vivo and stimulates the in vitro growth of a variety of endothelial cells. It has a highly restricted target cell specificity acting only on endothelial cells. Mutations in this gene have been associated with mitochondrial neurogastrointestinal encephalomyopathy. Multiple alternatively spliced transcript variants have been identified. [provided by RefSeq, Apr 2012]

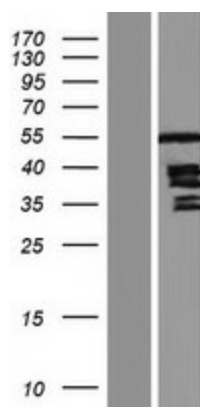
Product images:



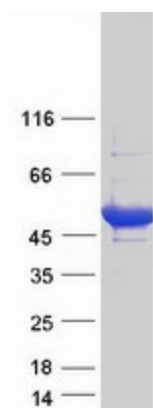
Circular map for RC202170



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY TYMP (Cat# RC202170, 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-TYMP (Cat# [TA800998]). Positive lysates [LY419632] (100ug) and [LC419632] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY419632]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC202170 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified TYMP protein (Cat# [TP302170]). The protein was produced from HEK293T cells transfected with TYMP cDNA clone (Cat# RC202170) using MegaTran 2.0 (Cat# [TT210002]).