

MRCPPU REAGENTS and SERVICES

Standard Operating Procedure

Preparation of CMTR1 [1 – 835]

Enzyme description:- CMTR1 [1 - 835]

Clone number:- DU 42831

Source:- Recombinant

Expression system:- *E.coli*

Tag:- N-terminal GST

Purification method:- GSH Agarose

Calculated molecular mass:-

Monoisotopic 122, 978.05 daltons

Average Mass 123, 056.96 daltons

[cysteines reduced, methionines have not been oxidized]

Theoretical pI:- 6.26

Purity:- >80 %

Enzyme storage buffer:-

50 mM Tris-HCl pH 7.5, 0.1 mM EGTA, 150 mM NaCl, 0.1 % 2-mercaptoethanol,
270 mM Sucrose

Storage temperature:- -70 °C

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Clone Data Sheet

CMTR1 [1 - 835]

Protein CMTR1 [1 – 835]

Clone number DU 42831

Species Human

Accession number Q8N1G2

Tags N-terminal GST

**Bacterially
expressed protein**

MSPILGYWKIKGLVQPTRLLEYLEEKYEEHLYERDEGDKWRNKKFELG
LEFPNLPYYIDGDVKLTQSMAIIRYIADKHNMLGGCPKERAIEISMLEGA
VLDIRYGVSR IAYS KDFETLKVDFLSKLPEMLKMFEDRLCHKTYLNGDH
VTHPDFMLYDALDVVLYMDPMCLDAFPKLVCFKKRIEAI PQIDKYLKSS
KYIAWPLQGWQATFGGGDHPPKSDLEVLFQGPLGSPEFPGRLD**MKRRTD**
PECTAPIKKQKKRVAELALSLSSTSDDEPPSSVSHGAKASTTSLSGSDS
ETEGKQHS SDS FDDAFKADSLVEGTSSRYSMYNSVSQKLMAKMGFREGE
GLGKYSQGRKDIVEASSQKGRRLGLTLRGFDQELNVDWRDEPEPSACE
QVSWFPECTTEIPDTQEMSDWMVVGKRKMI IEDETEFCGEELLHSVLQC
KSVFDVLDGEEMRRARTRANPYEMIRGVFFLNRAAMKMANMDFVDRMF
TNPRDSYGKPLVKDREAELLYFADVCAGPGGFSEYVLWRKKWHAKGFGM
TLKGPNDFKLEDFYSASSELFEPYEGGIDGDGDI TRPENISAFRNFV
LDNTDRKGVHFLMADGGFSVEGQENLQEILSKQLLLCQFLMALSIVRTG
GHFICKTFDLFTPFVSVGLVYLLYCCFERVCLFKPITSRPANSERYVVCK
GLKVGIDDVRDYLFVAVNIKLNQLRNTSDVNLVVPLEVIKGDHEFTDYM
IRSNESHCSLQIKALAKIHAFVQD TTLSEPRQAEIRKECLRLWGI PDQA
RVAPSSSDPKSKFFELIQGTEIDIFSYPKPTLLTSKTLEKIRPVFDYRCM
VSGSEQKFLIGLGSQIYTWDGRQSDRWIKLDLKTTELPRDTLLSVEIVH
ELKGEKQQRKISAIHILDVVLVNGTDVREQHFNQRIQLAEKFKAVSK
PSRPDMNPIRVKEVYRLEEMEKI FVRLEMKIIKSSGTPKLSYTGRDDR
HFVPMGLYIVRTVNEPWTMGFSKSFKKKFFYNKKT KDSTFDLPADSIAP
FHICYYGRLFWEWGDGIRVHDSQKPQDQDKLSKEDVLSFIQMHRA

Native sequence Amino acids M1 – A835 (end residue) of human CMTR1.
Residue M240 of the fusion protein is equivalent to M1 of the native
enzyme. The GST tag is located at residues 1 – 220.

Protease cleavage PreScission (LEVLFGQP) residues 221 - 229

Cloning sites *SalI* and *NotI* into *XhoI* and *NotI* sites of pGEX 6P-1

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Nucleotide Sequence

ATGAAGAGGAGAACTGACCCAGAATGCACTGCCCCCATCAAGAAACAGAAAAAAGAGT
TGCAGAGCTTGCCCTGAGCCTCAGCTCCACGTCCGATGATGAACCTCCCTCCTCTGTCA
GTCATGGAGCAAAAGCATCTACTACAAGCCTTAGTGGGTCTGATAGTGAGACCGAGGGG
AAACAACACAGCTCTGACTCTTTTGACGATGCATTCAAAGCAGACTCTCTTGTGGAAGG
AACTTCTTCTCGCTATTCCATGTATAATAGCGTCTCCCAGAAGCTTATGGCCAAGATGG
GCTTCAGGGAAGGTGAAGGATTGGGTAAATACAGCCAGGGTCGGAAGGACATCGTTGAG
GCTTCCAGTCAGAAAGGTCGAAGAGGCTTGGGTCTGACACTCCGGGGCTTTGACCAGGA
GCTGAACGTGGACTGGCGAGATGAGCCAGAGCCCAGTGCTTGTGAGCAGGTGTCATGGT
TTCCAGAATGTACCACTGAAATTCCTGACACTCAGGAAATGAGCGATTGGATGGTGGTG
GGAAAGAGAAAGATGATTATTGAAGATGAAACAGAGTTTTGTGGGGAAGAGCTGCTTCA
CAGTGTGTTGCAAGTGAAGAGCGTGTGGATGTTGGATGGGGAAGAGATGCGGCGAG
CTCGGACTCGGGCCAATCCCTATGAGATGATCCGAGGAGTCTTCTTTCTAAACAGGGCA
GCAATGAAGATGGCTAACATGGATTTTGTATTTGATCGCATGTTACAAATCCGCGGGA
CTCTTATGGGAAGCCACTGGTGAAGGACCGGGAAGCTGAGCTTCTGTACTTTGCTGATG
TCTGCGCAGGCCCAGGTGGCTTCTCAGAGTATGTGCTGTGGAGGAAGAAGTGGCATGCA
AAGGGCTTTGGAATGACTTTGAAGGGCCCTAATGACTTCAAGCTGGAGGACTTCTACTC
TGCTTCCAGTGAACCTTTCGAACCCTACTATGGTGAGGGTGGGATTGATGGAGATGGAG
ATATCACCCGCCCAGAGAACATCTCTGCTTTTTCGGAATTTTGTCTGGATAACACAGAT
CGCAAGGGTGTCCATTTTCTGATGGCTGATGGGGTTTTCTCGGTGGAGGGGCAGGAGAA
CCTGCAGGAGATCCTCAGCAAGCAGCTGCTTCTGTGTGAGTTCCTCATGGCGCTGTCCA
TTGTCCGGACAGGAGGCCACTTCATCTGTAAAACCTTTGACCTGTTACACCGTTTTAGT
GTGGGGCTTGTCTACCTGCTGTACTGCTGCTTTGAACGAGTTTTGTCTCTTCAAGCCTAT
TACCAGCCGTCTGCCAACCTCAGAGAGGTATGTGGTGTGCAAGGGCCTGAAGGTGGGCA
TAGATGATGTTCCGGATTACCTCTTCGCAGTGAATATTAAGTCAATCAGCTGCGGAAC
ACGGATTCCGACGTCAACTTGGTGGTCCCCCTGGAGGTGATCAAGGGAGACCATGAATT
TACTGACTACATGATACGGTCCAATGAGAGCCACTGTAGTCTGCAGATCAAAGCTCTGG
CGAAAATCCATGCCTTTGTTCAAGACACGACACTGAGTGAGCCTCGACAGGCAGAGATA
CGGAAGGAGTGCCTCCGACTCTGGGGGATCCCAGACCAGGCTCGTGTGGCTCCTTCTTC
CTCCGACCCTAAATCGAAGTTCTTTGAGCTAATCCAGGGCACTGAGATTGACATCTTCA
GCTACAAGCCACACTGCTCACCTCTAAAACCCTGGAGAAGATCCGCCCTGTGTTTGAC
TACCGCTGCATGGTATCTGGCAGTGAGCAGAAGTTCCTCATCGGCCCTGGGAAATCCCA
GATCTACACATGGGATGGCCGCCAGTCAGACCCTGGATCAAGCTAGACCTGAAGACAG
AGCTGCCCCGGGACACTCTGCTATCTGTGGAATTTGTGCATGAGCTGAAAGGGGAGGGG
AAGGCCAGAGGAAGATCAGTGCCATCCACATCCTCGATGTCCTTGTGCTGAATGGCAC
CGACGTTCCGGGAGCAGCACTTTAACCAGCGAATTCAGCTTGCCGAGAAATTTGTGAAAG
CCGTTTTCCAAGCCTAGTCGGCCCGACATGAATCCCATCAGGGTGAAGGAGGTGTACAGA
CTGGAAGAGATGGAGAAGATTTTTGTGAGGTTGGAGATGAAGATCATCAAGGGCTCCAG
TGGCACCCCAAAGCTCAGCTACACAGGGCGTGATGACCGGCACTTTGTACCCATGGGCC
TCTACATCGTCAGGACAGTGAATGAGCCCTGGACTATGGGATTGAGCAAAAGCTTCAAG
AAGAAGTTCTTCTACAACAAGAAAACCAAGGACTCTACTTTTGACCTCCCTGCAGACTC
CATTGCCCCATTTACATTTGCTACTATGGCCGGCTCTTCTGGGAGTGGGGGGATGGCA
TTCGTGTGCATGACTCCCAGAAGCCCCAGGACCAGGACAAGCTGTCCAAGGAGGACGTC
CTCTCCTTCATCCAGATGCACAGGGCctaa