

# Product Information

## **MemDX™ Membrane Protein Human TRPM7 (Transient receptor potential cation channel subfamily M member 7) Full Length**

Cat. No.: **MPC0968K**

This product is for research use only and is not intended for diagnostic use.

This product is a 212.6 kDa Human TRPM7 membrane protein expressed in HEK293. The protein is for research use only and is not approved for use in humans or in clinical diagnosis.

### Product Specifications

#### Host Species

Human

#### Target Protein

TRPM7

#### Protein Length

Full length

#### Protein Class

Transporter; Ion channel

#### Molecular Weight

212.6 kDa

#### TMD

6

#### Sequence

MSQKSWIESTLTKRECVYIIPSSKDPHRCLPGCQICQQLVRCFCGRLVKQ  
HACFTASLAMKYSDVKLGDFHNQAIEEWSVEKHTEQSPTDAYGVINFQGG  
SHSYRAKYVRLSYDTKPEVILQLLLKEWQMELPKLVISVHGGMQKFELHP  
RIKQLLGKGLIKA AVTTGAWILTGGVNTGVAKHVG DALKEHASRSSRKIC  
TIGIAPWGVNIENRNDLVGRDVVAPYQTLLNPLSKLNLNLSHSHFILVDD  
GTVGKYGAEVRRLRELEKTINQQRHARIGQGVPVVALIFEGGPNVILTV  
LEYLQESPPVPVVVCEGTGRAADLLAYIHKQTEEGGNLPDAAEPDIISTI  
KKTFFNFGQNEALHLFQTLMECMKRKELITVFHIGSDEHQDIDVAILTALL  
KGTNASAFDQLILTLAWDRVDIAKNHVFVYGGQWL VGSLEQAMLDALVMD  
RVAFVKLLIENGVS MHKFLTIPRLEELYNTKQGPTNPMLFHLVRDVKQGN  
LPPGYKITLIDIGLVIEYLMGGTYRCTYTRKRFRLIYNLSLGGNNRRSGRN  
TSSSTPQLRKSHESFGNRADKKEKMRHNHFIIKTAQPYRPKIDTVMEEGKK  
KRTKDEIVDIDDPETKRFPYPLNELLIWACL MKRQVMARFLWQHGEESMA  
KALVACKIYRSMAYEAKQSDLVDDTSEELKQYSNDFGQLAVELLEQSFRQ  
DETMAMKLLTYELKNWSNSTCLKLVSSRLRPFVAHTCTQMLLSDMWMGR  
LNM RKNSWYKVILSILVPPAILLLEYKTKAEMSHIPQSQDAHQMTMDDSE  
NNFQNIITEEIPMEVFKEVRILDSNEGKNEMEIQMKS KKLPI TRKFYAFYH  
APIVKFWFNTLAYLGFLMLYTFVVLVQMEQLPSVQEWIVIAIYIFTYAIEK  
VREIFMSEAGKVNQKIKVWFSDYFNISDTIAISFFIGFLRF GAKWNFA

NAYDNHVFVAGRLIYCLNIIFWYVRLDFLAVNQQAGPYVMMIGKMVANM  
FYIVVIMALVLLSFGVPRKAILYPHEAPSWTLAKDIVFHPYWMIFGEVYA  
YEIDVCANDSVIPQICGPGTWLTPFLQAVYLFVQYIIMVNLLIAFFNNVY  
LQVKAISNIVWKYQRYHFIMAYHEKPVLPPLIILSHIVSLFCCICKRRK  
KDKTSDGPKLFLTEEDQKKLHDFEEQCVMYFNEKDDKFHSGSEERIRVT  
FERVEQMCIQIKEVGDRVNIKRSLQSLDSQIGHLQDLSALTVDTLKTLT  
AQKASEASKVHNEITRELSISKHLAQNLIIDGVPVRPSVWKKHGVVNTLSS  
SLPQGDLESNNPFHCNILMKDDKDPQCNIFGQDLPAVPQRKEFNFEAGS  
SSGALFPSAVSPPELRQRLHGVVELLKIFNKNQKLGSSSTSIPHLSSPPTK  
FFVSTPSQPSCKSHLETGTDQETVCSKATEGDNTEFGAFVGHRSMDLQ  
RFKETSNIKILSNNNTSENTLKRVSLLAGFTDCHRTSIPVHVKQAEKIS  
RRPSTEDTHEVDSKAALIPDWLQDRPSNREMPSEEGTLNGLTSPFKPAMD  
TNYYYSAVERNLMRLSQSIPFTPVPPRGEPVTVYRLEESSPNILNNSMS  
SWSQLGLCAKIEFLSKEEMGGGLRAVKVQCTWSEHDILKSGHLYIIKSF  
LPEVVNTWSSYKEDTVLHLCLREIQQRRAAQKLTFAFNQMKPKSIPYSP  
RFLEVFLLYCHSAGQWFAVEECMTGEFRKYNNNNGDEIIPNTNLEEIMLA  
FSHWTYEYTRGELLVLDLQGVGENLTDPSVIKAEKRSKCDMVFGPANLGE  
DAIKNFRAKHHCNSCCRKLKLPDLKRNDYTPDKIIFQDEPSDLNLQPGN  
STKESESTNSVRLML

## Product Description

### Expression Systems

HEK293

### Tag

Based on specific requirements

### Protein Format

Detergent or based on specific requirements

### Form

Liquid

### Storage

Aliquot and store at -20°C or lower. For long term storage, we recommend to store at -72°C or lower. Avoid freeze/thaw cycles.

## Target

### Target Protein

TRPM7

### Full Name

Transient receptor potential cation channel subfamily M member 7

### Introduction

This gene belongs to the melastatin subfamily of transient receptor potential family of ion channels. The protein encoded by this gene is both an ion channel and a serine/threonine protein kinase. The kinase activity is essential for the ion channel function, which serves to increase intracellular calcium levels and to help regulate magnesium ion homeostasis. The encoded protein is involved in cytoskeletal organization, cell adhesion, cell migration and organogenesis. Defects in this gene are a cause of amyotrophic lateral sclerosis-parkinsonism/dementia complex of Guam. The gene may also be associated with defects of cardiac function.

### Alternative Names

CHAK; CHAK1; ALSPDC; LTRPC7; LTrpC-7; TRP-PLIK; transient receptor potential cation channel subfamily M member

7; LTRPC ion channel family member 7; channel-kinase 1; long transient receptor potential channel 7; transient receptor potential-phospholipase C-interacting kinase; TRPM7; Transient receptor potential cation channel subfamily M member 7

**Gene ID**

[54822](#)

**UniProt ID**

[Q96QT4](#)