

## TRPC1 Protein, Mouse (Cell-Free, His)

<b>Cat. No.:</b>	HY-P702475
<b>Synonyms:</b>	Short transient receptor potential channel 1; Transient receptor protein 1; TRP-1; mTrp1; Trp-related protein 1
<b>Species:</b>	Mouse
<b>Source:</b>	E. coli Cell-free
<b>Accession:</b>	Q61056 (M1-N793)
<b>Gene ID:</b>	22063
<b>Molecular Weight:</b>	94.0 kDa

### PROPERTIES

#### AA Sequence

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MMAALYPSTD   LSGVSSSSSLP   SSPSSSSSPNE   VMALKDVREV
KEENTLNEKL   FLLACDKGDY   YMVKKILEEN   SSGDLNINCV
DVLGRNAVTI   TIENESLDIL   QLLLDYGCQS   ADALLVAIDS
EVVGAVDILL   NHRPKRSSRP   TIVKLMERIQ   NPEYSTTMDV
APVILAAHRN   NYEILTMLLK   QDVS LPKPHA   VGCECTLCSA
KNKKDSL R HS   RFRLDIYRCL   ASPALIMLTE   EDPILRAFEL
SADLKE LSLV   EVEFRNDYEE   LARQCKMFAK   DLLAQARNSR
ELEVILNHTS   SDEPLDKRGL   LEERMNLSRL   KLAIKYNQKE
FVSQSN CQQF   LNTVWFGQMS   GYRRKPTCKK   IMTVLTVGIF
WPVLSLCYLI   APKSQFGRII   HTPFMKFIH   GASYFTFLLL
LNLYSLVYNE   DKKNTMGPAL   ERIDYLLILW   IIGMIWSDIK
RLWYEGLEDF   LEESRNQLSF   VMNSLYLATF   ALKVVVAHNKF
HDFADRKDWD   AFHPTLVAEG   LFAFANVLSY   LRLFFMYTTS
SILGPLQISM   GQMLQDFGKF   LGMFLLVLFS   FTIGLTQLYD
KGYTSKEQKD   CVGIFCEQQS   NDTFH SFIGT   CFALFWYIFS
LAHV AIFVTR   FSYGEELQSF   VGAVIVGTYN   VVVVIVLTKL
LVAMLHKS FQ   LIANHEDKEW   KFARAKLWLS   YFDDKCTLPP
PFNIIPSPKT   ICYMIS SLSK   WICSHTSKGK   VKRQNSLKEW
RN LKQKR DEN   YQKVM CCLVH   RYL TSMRQKM   QSTDQATVEN
LNE LRQD LSK   FRNEIRDLLG   FRTSKYAMFY   PRN
  
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**Appearance** Lyophilized powder.

**Formulation** Lyophilized from a 0.22  $\mu$ m filtered solution of Tris/PBS-based buffer, 6% Trehalose, pH 8.0.

**Endotoxin Level** <1 EU/ $\mu$ g, determined by LAL method.

**Reconstitution** It is not recommended to reconstitute to a concentration less than 100  $\mu$ g/mL in ddH<sub>2</sub>O. For long term storage it is recommended to add 5-50% of glycerol (final concentration). Our default final concentration of glycerol is 50%. Customers could use it as reference.

**Storage & Stability**

Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.

**Shipping**

Room temperature in continental US; may vary elsewhere.

**DESCRIPTION****Background**

TRPC1 protein is postulated to assemble into a receptor-activated non-selective calcium-permeant cation channel, likely operated by a phosphatidylinositol second messenger system activated through receptor tyrosine kinases or G-protein coupled receptors. Additionally, it appears to be activated by the depletion of intracellular calcium stores. TRPC1 can form homotetramers and heterotetramers with TRPC4 and/or TRPC5, highlighting its potential to engage in diverse channel configurations. It interacts with TRPC4, TRPC5, and ITPR3, suggesting a network of associations with other proteins involved in calcium signaling. Furthermore, TRPC1 interacts with MX1, RNF24, FKBP4, and TRPC4AP, indicating its involvement in various cellular processes. Notably, TRPC1 interacts with PLSCR1, implicating its potential role in calcium-dependent phosphatidylserine externalization and apoptosis, further underlining its multifaceted contributions to cellular signaling and protein interactions.

**Caution: Product has not been fully validated for medical applications. For research use only.**

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