

Product datasheet for SC201223

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PTRH2 (NM_016077) Human 3' UTR Clone

Product data:

Product Type: 3' UTR Clones

Product Name: PTRH2 (NM_016077) Human 3' UTR Clone

Symbol: PTRH2

Synonyms: BIT1; CFAP37; CGI-147; IMNEPD; PTH; PTH 2; PTH2

Mammalian Cell

Selection:

Neomycin

Vector: pMirTarget (PS100062)

ACCN: NM_016077

Insert Size: 161 bp

Insert Sequence: >SC201223 3'UTR clone of NM_016077

The sequence shown below is from the reference sequence of NM_016077. The complete

sequence of this clone may contain minor differences, such as SNPs.

Blue=Stop Codon Red=Cloning site

GGCAAGTTGGACGCCCGCAAGATCCGCGAGATTCTCATTAAGGCCAAGAAGGGCGGAAAGATCGCCGTG

TAACAATTGGCAGAGCTCAGAATTCAAGCGATCGCC

AAAGTCACTGGTCACCTAAAACTTTACTAGGTGGACTTTGATATGACAACAACCCCTCCATCACAAGTGTTTGAAGCCTGTCAGATTCTAACAACAAAAGCTGAATTTCTTCACCCAACTTAAATGTTCTTGAGATGA

AAATAAAACCTATTCCCATGTTC

 ${\tt CGAGATTTCGATTCCACCGCCGCCTTCTATGAAAGG}$

Restriction Sites: Sgfl-Mlul

OTI Disclaimer: Our molecular clone sequence data has been matched to the sequence identifier above as a

point of reference. Note that the complete sequence of this clone is largely the same as the

reference sequence but may contain minor differences, e.g., single nucleotide

polymorphisms (SNPs).

Components: The cDNA clone is shipped in a 2-D bar-coded Matrix tube as 10 ug dried plasmid DNA. The

package also includes 100 pmols of both the corresponding 5' and 3' vector primers in

separate vials.

RefSeq: <u>NM 016077.5</u>







Summary:

The protein encoded by this gene is a mitochondrial protein with two putative domains, an Nterminal mitochondrial localization sequence, and a UPF0099 domain. In vitro assays suggest that this protein possesses peptidyl-tRNA hydrolase activity, to release the peptidyl moiety from tRNA, thereby preventing the accumulation of dissociated peptidyl-tRNA that could reduce the efficiency of translation. This protein also plays a role regulating cell survival and death. It promotes survival as part of an integrin-signaling pathway for cells attached to the extracellular matrix (ECM), but also promotes apoptosis in cells that have lost their attachment to the ECM, a process called anoikos. After loss of cell attachment to the ECM, this protein is phosphorylated, is released from the mitochondria into the cytosol, and promotes caspase-independent apoptosis through interactions with transcriptional regulators. This gene has been implicated in the development and progression of tumors, and mutations in this gene have been associated with an infantile multisystem neurologic, endocrine, and pancreatic disease (INMEPD) characterized by intellectual disability, postnatal microcephaly, progressive cerebellar atrophy, hearing impairment, polyneuropathy, failure to thrive, and organ fibrosis with exocrine pancreas insufficiency (PMID: 25574476). Alternative splicing results in multiple transcript variants encoding different isoforms. [provided by RefSeq, Mar 2015]

Locus ID: 51651

MW: 6.1