

Recombinant Full Length Human PTRH2 Protein, GST-tagged

Cat. No. PTRH2-1642HF **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Human Bit1 full-length ORF (AAH06807, 1 a.a. - 179 a.a.) recombinant protein with GST-tag at N-terminal.
Species	Human
Source	In Vitro Cell Free System
ProteinLength	179 amino acids
Description	The protein encoded by this gene is a mitochondrial protein with two putative domains, an N-terminal 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 anoikis. 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,

 Tel: 1-631-559-9269 1-516-512-3133

 Email: info@creative-biomart.com  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

polyneuropathy, failure to thrive, and organ fibrosis with exocrine pancreas insufficiency (PMID: 25574476). Alternative splicing results in multiple transcript variants encoding different isoforms.

Form 50 mM Tris-HCl, 10 mM reduced Glutathione, pH=8.0 in the elution buffer.

Molecular Mass 45.43 kDa

AA Sequence MPSKSLVMEY LAHPSTLGLA VGVACGMCLG WSLRVCFGML PKSKTSKTHT
DTESEASILG DSGEYKMILV VRNDLKMKGK KVAAQCSHAA VSAYKQIQRR
NPEMLKQWEY CGQPKVVVKA PDEETLIAL AHAKMLGLTV SLIQDAGRTQ
IAPGSQTVLG IGP GPADLID KVTGHLKLY

Storage Store at -80 centigrade. Aliquot to avoid repeated freezing and thawing.

Storage Buffer 50 mM Tris-HCl, 10 mM reduced Glutathione, pH=8.0 in the elution buffer.

GENE INFORMATION

Gene Name PTRH2 peptidyl-tRNA hydrolase 2 [Homo sapiens]

Official Symbol PTRH2

Synonyms PTRH2; peptidyl-tRNA hydrolase 2; peptidyl-tRNA hydrolase 2, mitochondrial; Bcl 2 inhibitor of transcription; BIT1; CGI 147; PTH2; PTH 2; bcl-2 inhibitor of transcription 1; CGI-147; FLJ32471

Gene ID 51651

mRNA Refseq NM_016077

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Protein Refseq	NP_057161
MIM	608625
UniProt ID	Q9Y3E5

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