Recombinant Human Pituitary Tumor-Transforming 1, His-tagged

Cat. No. PTTG1-4522H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	PTTG1 Human Recombinant fused with 20 amino acid His tag at N-terminus produced in E.Coli is a single, non-glycosylated, polypeptide chain containing 222 amino acids (1- 202 a.a.) and having a molecular mass of 24.1kDa. The PTTG1 is purified by proprietary chromatographic techniques.
Species	Human
Source	Human
ProteinLength	1-202 a.a.
Description	PTTG1 (Securin) is mainly involved in the regulation of sister chromatid separation during cell division. Securin is a regulatory protein, which has a central role in chromosome stability, in the p53/TP53 pathway, and DNA repair. Additional two roles have been identified for PTTG1; the first one is to facilitate the transport of separase (cysteine protease) to the nucleus and the second role is to hinder the catalytic activity of separase. PTTG1 is ubiquitinated by the APC (Anaphase Promoting Complex), and subsequently degraded by the Proteasome, releasing separase. During the mitosis, PTTG1 blocks Separase/ESPL1 function, thus preventing the proteolysis of the cohesin complex and the ensuing segregation of the chromosomes. However, PTTG1 function is not restricted to a blocking activity only, since it is required to activate ESPL1. PTTG1 is ubiquitinated at the beginning of anaphase, leading to its destruction and to the liberation of ESPL1.

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Form	The PTTG1 solution contains 20mM Tris-HCl buffer (pH8.0), 0.1M NaCl and transforming gene 10% glycerol.
Purity	Greater than 80.0% as determined by SDS-PAGE.
Physical Appearance	Sterile Filtered colorless solution.
Storage	PTTG1 although stable 4°C for 4 weeks, should be stored desiccated below -18°C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.

GENE INFORMATION

Gene Name	PTTG1 pituitary tumor-transforming 1 [Homo sapiens]
Official Symbol	PTTG1
Synonyms	PTTG1; pituitary tumor-transforming 1; EAP1; PTTG; HPTTG; TUTR1; MGC126883; MGC138276; securing; OTTHUMP00000160845; ESP1-associated protein 1; tumor-transforming protein 1; hPTTG; Esp1-associated protein; Tumor-transforming protein 1; pituitary tumor-transforming 1
Gene ID	9232
mRNA Refseq	NM_004219
Protein Refseq	NP_004210
MIM	604147
UniProt ID	O95997

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Chromosome Location	5q35.1
Pathway	Cell cycle; Cell Cycle, Mito; HTLV-I infection
Function	SH3 domain binding; cysteine-type endopeptidase inhibitor activity; protein binding; transcription factor activity

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