PTTG1 Antibody – Mouse Monoclonal

PRODUCT OVERVIEW

Product Name	PTTG1, Monoclonal Antibody
Full Product Name	PTTG1 (EAP1, PTTG, TUTR1, Securin, Esp1-associated Protein, Pituitary Tumor-transforming Gene 1 Protein) (MaxLight 750)
Product Gene Name	anti-PTTG1 antibody
Clonality	Monoclonal
Isotype	IgG2b,k
Clone Number	2C3
Host	Mouse
Species Reactivity	Human
Form/Format	Supplied as a liquid in PBS, pH 7.2. No preservative added. Labeled with MaxLight750.
Purity/Purification	Purified by Protein A Affinity Chromatography.
Specificity	Recognizes human PTTG1.
Preparation and Storage	Store product at 4 degree C in the dark. DO NOT FREEZE! Stable at 4 degree C for 12 months after receipt as an undiluted liquid. Dilute required amount only prior to immediate use. Further dilutions can be made in assay buffer. Caution: MaxLight750 conjugates are sensitive to light. For maximum recovery of product, centrifuge the original vial prior to removing the cap.
OMIM	604147
3D Structure	ModBase 3D Structure for O95997
Immunogen	Partial recombinant corresponding to aa1-101 from PTTG1 (NP_004210) with GST tag. MW of the GST tag alone is 26kD.
Immunogen Sequence	LDIAPHAIERLHHMHIYPIVIFIHYKSAKHIKEQRDPIYLRDKVTQRHSKEQFEAAQKLEQEYSRYFTGVIQGGALSSICTQILAMVNQEQNKVLWIPACPL
Conjugate	MaxLight750
Product Categories/Family for anti-PTTG1 antibody	Antibodies; Cancer Markers
Applications Tested/Suitable for anti-PTTG1 antibody	FLISA, Western Blot (WB)
Application Notes for anti-PTTG1 antibody	Applications are based on unconjugated antibody.

Related Product Information for anti-PTTG1 antibody	PTTG1 is a homolog of yeast securin proteins, which prevent separins from promoting sister chromatid separation. It is an anaphase-promoting complex (APC) substrate that associates with a separin until activation of the APC. The protein has transforming activity in vitro and tumorigenic activity in vivo, and is highly expressed in various tumors. This protein contains 2 PXXP motifs, which are required for its transforming and tumorigenic activities, as well as for its stimulation of basic fibroblast growth factor expression. It also contains a destruction box (D box) that is required for its degradation by the APC. The acidic C-terminal region of the protein can act as a transactivation domain. It is mainly a cytosolic protein, although it partially localizes in the nucleus.
Other Notes	Small volumes of anti-PTTG1 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for PTTG1 purchase	MBS6234792 is an antibody targeting PTTG1. Also known as PTTG1 (EAP1, PTTG, TUTR1, Securin, Esp1-associated Protein, Pituitary Tumor-transforming Gene 1 Protein) (MaxLight 750). Reactive in Human. Host: Mouse.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for PTTG1. It may not necessarily be applicable to this product.

NCBI GI #	1519243629
NCBI GeneID	9232
NCBI Accession #	NM_004219.4
UniProt Primary Accession #	O95997
UniProt Related Accession #	O95997
GenBank Nucleotide #	NM_004219
NCBI Official Full Name	Homo sapiens PTTG1 regulator of sister chromatid separation, securin (PTTG1), transcript variant 2, mRNA
NCBI Official Synonym Full Names	PTTG1 regulator of sister chromatid separation, securin
NCBI Official Symbol	PTTG1
NCBI Official Synonym Symbols	EAP1; PTTG; HPTTG; TUTR1
UniProt Protein Name	Securin
UniProt Synonym Protein Names	Esp1-associated protein; Pituitary tumor-transforming gene 1 protein
UniProt Gene Name	PTTG1
UniProt Synonym Gene Names	EAP1; PTTG; TUTR1; Tumor-transforming protein 1; hPTTG
UniProt Entry Name	PTTG1_HUMAN
NCBI Protein Information	securin
NCBI Summary for PTTG1	The encoded protein is a homolog of yeast securin proteins, which prevent separins from promoting sister chromatid separation. It is an anaphase-promoting complex (APC) substrate that associates with a separin until activation of the APC. The gene product has transforming activity in vitro and tumorigenic activity in vivo, and the gene is highly expressed in various tumors. The gene product contains 2 PXXP motifs, which are required for its transforming and tumorigenic activities, as well as for its stimulation of basic fibroblast growth factor expression. It also contains a destruction box (D box) that is required for its degradation by the APC. The acidic C-terminal region of the encoded protein can act as a transactivation domain. The gene product is mainly a cytosolic protein, although it partially localizes in the nucleus. Three transcript variants encoding the same protein have been found for this gene. [provided by RefSeq, Sep 2013]

UniProt Comments for PTTG1	Securin: Regulatory protein, which plays a central role in chromosome stability, in the p53/TP53 pathway, and DNA repair. Probably acts by blocking the action of key proteins. During the mitosis, it blocks Separase/ESPL1 function, preventing the proteolysis of the cohesin complex and the subsequent segregation of the chromosomes. At the onset of anaphase, it is ubiquitinated, conducting to its destruction and to the liberation of ESPL1. Its function is however not limited to a blocking activity, since it is required to activate ESPL1. Negatively regulates the transcriptional activity and related apoptosis activity of TP53. The negative regulation of TP53 may explain the strong transforming capability of the protein when it is overexpressed. May also play a role in DNA repair via its interaction with Ku, possibly by connecting DNA damage-response pathways with sister chromatid separation. Belongs to the securin family. Protein type: Oncoprotein; Cell cycle regulation Chromosomal Location of Human Ortholog: 5q35.1 Cellular Component: cytoplasm; cytosol; nucleus Molecular Function: protein binding; cysteine protease inhibitor activity; SH3 domain binding; transcription factor activity Biological Process: transcription from RNA polymerase II promoter; mitosis; regulation of transcription, DNA-dependent; cell division; anaphase-promoting complex-dependent proteasomal ubiquitin-dependent protein catabolic process; spermatogenesis; mitotic cell cycle; DNA repair; chromosome organization and biogenesis; chromosome segregation
Research Articles on PTTG1	**1.** Down-regulated expression of PTTG1 induces senescence of human castration-resistant prostate cancer LNCaP-AI cells.
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