10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

PTTG1 Antibody (N-term) Blocking Peptide

Synthetic peptide
Catalog # BP7354a

Specification

PTTG1 Antibody (N-term) Blocking Peptide - Product Information

Primary Accession O95997

PTTG1 Antibody (N-term) Blocking Peptide - Additional Information

Gene ID 9232

Other Names
Securin, Esp1-associated protein, Pituitary tumor-transforming gene 1 protein, Tumor-transforming protein 1, hPTTG, PTTG1, EAP1, PTTG, TUTR1

Target/Specificity
The synthetic peptide sequence used to generate the antibody AP7354a was selected from the N-term region of human PTTG1. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

PTTG1 Antibody (N-term) Blocking Peptide - Protein Information

Name PTTG1

Synonyms EAP1, PTTG, TUTR1

Function
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.

Cellular Location
Cytoplasm. Nucleus.

Tissue Location
Expressed at low level in most tissues, except in adult testis, where it is highly expressed. Overexpressed in many patients suffering from pituitary adenomas, primary epithelial neoplasias, and esophageal cancer.

PTTG1 Antibody (N-term) Blocking Peptide - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Blocking Peptides

PTTG1 Antibody (N-term) Blocking Peptide - Images

PTTG1 Antibody (N-term) Blocking Peptide - Background

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.

PTTG1 Antibody (N-term) Blocking Peptide - References

Li,T., J Genet Genomics 36 (6), 335-342 (2009)Yan,S., Cancer Res. 69 (8), 3283-3290 (2009)Chesnokova,V., Horm. Res. 71 SUPPL 2, 82-87 (2009)