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

PTTG1/2/3 Antibody

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP51461

Product Information

Application	WB
Primary Accession	O95997
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Calculated MW	22024

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	KLH conjugated synthetic peptide derived from human PTTG1/2/3
Dilution	WB~~ 1:1000
Format	0.01M PBS, pH 7.2, 0.09% (W/V) Sodium azide, Glycerol 50%
Storage	Store at -20 °C.Stable for 12 months from date of receipt

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.

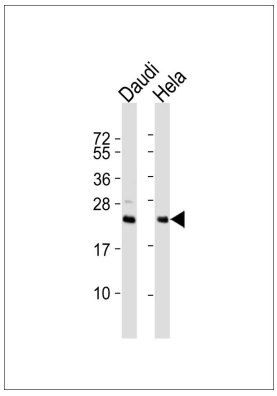
Background

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.

References

Dominguez A.,et al.Oncogene 17:2187-2193(1998).
Mu Y.,et al.Submitted (SEP-1998) to the EMBL/GenBank/DDBJ databases.
Kakar S.S.,et al.Cytogenet. Cell Genet. 84:211-216(1999).
Kakar S.S.,et al.Gene 240:317-324(1999).
Zhang X.,et al.Mol. Endocrinol. 13:156-166(1999).

Images



All lanes : Anti-PTTG1/2/3 Antibody at 1:1000 dilution Lane 1: Daudi whole cell lysates Lane 2: Hela whole cell lysates Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L),Peroxidase conjugated at 1/10000 dilution Predicted band size : 22 kDa Blocking/Dilution buffer: 5% NFDM/TBST.