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Securin Rabbit pAb

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Catalog # AP94564

Product Information

Application	WB, IHC-P, IHC-F, IF
Primary Accession	O95997
Reactivity	Human, Mouse, Rat
Predicted	Pig, Horse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	22024
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human PTTG1
Epitope Specificity	101-202/202
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Cytoplasm. Nucleus.
SIMILARITY	Belongs to the securin family.
Post-translational modifications	Phosphorylated at Ser-165 by CDK1 during mitosis. Phosphorylated in vitro by ds-DNA kinase. Ubiquitinated through 'Lys-11' linkage of ubiquitin moieties by the anaphase promoting complex (APC) at the onset of anaphase, conducting to its degradation. 'Lys-11'-linked ubiquitination is mediated by the E2 ligase UBE2C/UBCH10.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	The encoded protein is a homolog of yeast securing 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].

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
Dilution	WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

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

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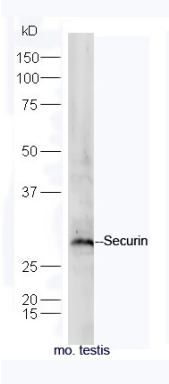
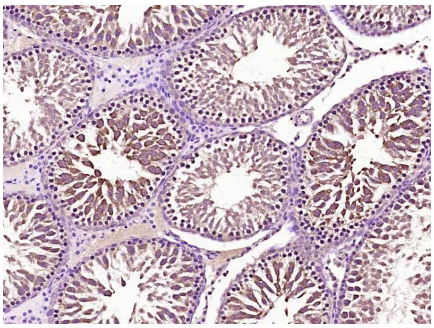
Images

Protein: testis(mouse) lysate at 30ug;
Primary: rabbit Anti- Securin (AP94564) at 1:300;
Secondary: HRP conjugated Goat-Anti-rabbit IgG(AP94564-HRP) at 1: 5000;
Predicted band size: 28 kD
Observed band size: 28 kD





Paraformaldehyde-fixed, paraffin embedded (Rat testis); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (Securin) Polyclonal Antibody, Unconjugated (AP94564) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining.