

Anti-Securin Antibody

Catalog # ABO11550

Product Information

Application	WB
Primary Accession	O95997
Host	Rabbit
Reactivity	Human
Clonality	Polyclonal
Format	Lyophilized
Description	Rabbit IgG polyclonal antibody for Securin(PTTG1) detection. Tested with WB in Human.
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

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
Calculated MW	22024
Application Details	Western blot, 0.1-0.5 µg/ml, Human
Subcellular Localization	Cytoplasm. Nucleus.
Tissue Specificity	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. .
Source	Eukaryota
Protein Name	Securin
Contents	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na ₂ HPO ₄ , 0.05mg Thimerosal, 0.05mg NaN ₃ .
Immunogen	A synthetic peptide corresponding to a sequence at the C-terminus of human Securin(146-161aa LMILDEERELEKLFQL), different from the related rat sequence by four amino acids, and from the related mouse sequence by five amino acids.
Purification	Immunogen affinity purified.
Cross Reactivity	No cross reactivity with other proteins

Storage	At -20° C for one year. After r° Constitution, at 4° C for one month. It° Can also be aliquotted and stored frozen at -20° C for a longer time.Avoid repeated freezing and thawing.
Sequence Similarities	Belongs to the securin family.

Protein Information

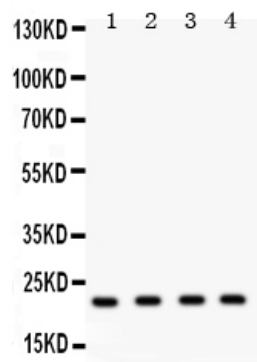
Name	PTTG1
Synonyms	EAP1, PTTG, TUTR1
Function	Regulatory protein, which plays a central role in chromosome stability, in the p53/TP53 pathway, and DNA repair. Probably acts by blocking the action of key proteins. During the mitosis, it blocks Separase/ESPL1 function, preventing the proteolysis of the 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

Securin, also known as pituitary tumor-transforming 1 or EAP1 is a protein that in humans is encoded by the PTTG1 gene. PTTG1 gene is mapped to 5q33.3. 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.

Images

Anti-Securin antibody, ABO11550, Western blottingAll lanes: Anti PTTG1 (ABO11550) at 0.5ug/mlLane 1: HELA Whole Cell Lysate at 40ugLane 2: MCF-7 Whole Cell Lysate at 40ugLane 3: SKOV Whole Cell Lysate at 40ugLane 4: A375 Whole Cell Lysate at 40ugPredicted bind size: 22KDObserved bind size: 22KD



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