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Separase Rabbit pAb

Catalog # AP100229

Product Information

Application	IHC-P, IHC-F, IF, E
Primary Accession	Q14674
Other Accession	Q14674
Predicted	Rat, Pig, Human, Mouse, Rabbit, Dog, Horse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	233175
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human Separase
Epitope Specificity	1851-1950/2120
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SIMILARITY	Belongs to the peptidase C50 family.
SUBUNIT	Interacts with PTTG1. Interacts with RAD21.
Post-translational modifications	Autocleaves. This function, which is not essential for its protease activity, is unknown.Phosphorylated by CDK1. There are 8 Ser/Thr phosphorylation sites. Among them, Ser-1126 phosphorylation is the major site, which conducts to the enzyme inactivation.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	Separase is a cysteine protease that is essential for mitotic progression by separating sister chromatids. Each cell must receive one chromatid of every chromosome, during mitosis. Cohesin plays an important role in cohering sister chromatids during the prophase through anaphase stages of mitosis, making certain that genomic information is replicated accurately. As the cellular division process continues, separase destroys cohesin by means of cleavage, allowing the chromatids to separate and divide with the cell. Separase activity is highly regulated. It not only cleaves cohesin at the onset of anaphase but also cleaves itself, promoting downregulation of separase after anaphase. Should a human cell become an aneuploid (one too many or too few chromatids), the embryo most likely will not survive. Should the embryo survive, it will most likely develop severe birth defects or later develop malignant cancers.

Additional Information

Gene ID	9700
Other Names	ESP1; SEPA; Cerp; PRCE; SSE; ESPL1_HUMAN; ESPL1; Caspase-like protein ESPL1; Extra spindle poles-like 1 protein; Separase; 3.4.22.49; KIAA0165; ESPL1_MOUSE; extra spindle pole bodies like 1, separase; extra spindle poles like 1 (S. cerevisiae); extra spindle pole bodies homolog 1 (S. cerevisiae);

	separin; separin, cysteine protease
Dilution	IHC-P=1:100-500,IHC-F=1:100-500,ICC/IF=1:100-500,IF=1:100-500,ELISA=1:5000-10000
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	ESPL1
Synonyms	ESP1, KIAA0165
Function	Caspase-like protease, which plays a central role in the chromosome segregation by cleaving the SCC1/RAD21 subunit of the cohesin complex at the onset of anaphase. During most of the cell cycle, it is inactivated by different mechanisms.
Cellular Location	Cytoplasm. Nucleus.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.