

Separase (Phospho Ser801) Rabbit pAb

CatalogNo: YP0872 **Orthogonal Validated** 

Key Features

Host Species

- Rabbit

Reactivity

- Human, Mouse

Applications

- WB, IHC, IF, ELISA

MW

- 230kD (Observed)

Isotype

- IgG

Storage

Storage* -15°C to -25°C/1 year (Do not lower than -25°C)

Formulation Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.

Recommended Dilution Ratios

WB 1:500-1:2000

IHC 1:100-1:300

IF 1:200-1:1000

ELISA 1:40000

Not yet tested in other applications.

Basic Information

Clonality Polyclonal

Immunogen Information

Immunogen The antiserum was produced against synthesized peptide derived from human SEPARASE around the phosphorylation site of Ser801. AA range: 767-816

Specificity

Phospho-Separase (S801) Polyclonal Antibody detects endogenous levels of Separase protein only when phosphorylated at S801. The name of modified sites may be influenced by many factors, such as species (the modified site was not originally found in human samples) and the change of protein sequence (the previous protein sequence is incomplete, and the protein sequence may be prolonged with the development of protein sequencing technology). When naming, we will use the "numbers" in historical reference to keep the sites consistent with the reports. The antibody binds to the following modification sequence (lowercase letters are modification sites): NSsPV

Target Information

Gene name ESPL1

Protein Name Separin

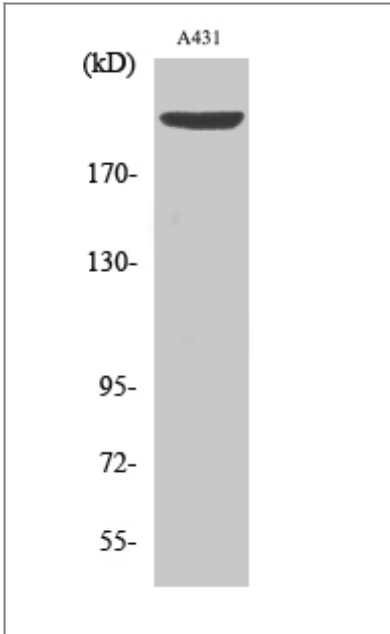
| Organism | Gene ID | UniProt ID |
|----------|-------------------------|-------------------------|
| Human | 9700; | Q14674; |
| Mouse | 105988; | P60330; |

Cellular Localization Cytoplasm. Nucleus.

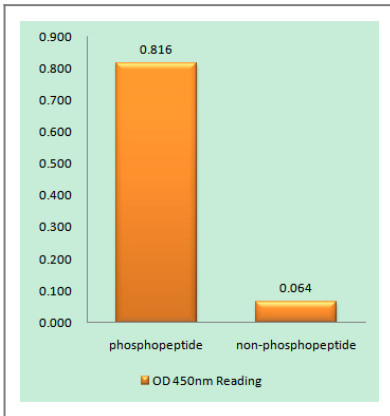
Tissue specificity Bone marrow, Epithelium,

Function Catalytic activity: All bonds known to be hydrolyzed by this endopeptidase have arginine in P1 and an acidic residue in P4. P6 is often occupied by an acidic residue or by a hydroxy-amino-acid residue, the phosphorylation of which enhances cleavage. enzyme regulation: Regulated by at least two independent mechanisms. First, it is inactivated via its interaction with securin/PTTG1, which probably covers its active site. The association with PTTG1 is not only inhibitory, since PTTG1 is also required for activating it, the enzyme being inactive in cells in which PTTG1 is absent. PTTG1 degradation at anaphase, liberates it and triggers RAD21 cleavage. Second, phosphorylation at Ser-1126 inactivates it. The complete phosphorylation during mitosis, is removed when cells undergo anaphase. Activation of the enzyme at the metaphase-anaphase transition probably requires the removal of both securin and inhibitory phosphate. 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. PTM: Autocleaves. This function, which is not essential for its protease activity, is unknown. PTM: Phosphorylated by CDC2. There are 8 Ser/Thr phosphorylation sites. Among them, Ser-1126 phosphorylation is the major site, which conducts to the enzyme inactivation. similarity: Belongs to the peptidase C50 family. subunit: Interacts with PTTG1. Interacts with RAD21.

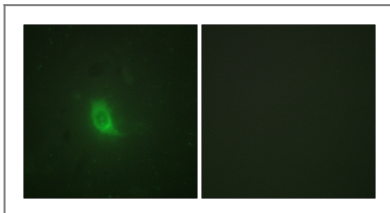
Validation Data



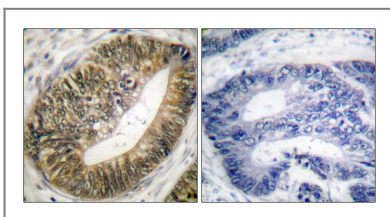
Western Blot analysis of various cells using Phospho-Separase (S801) Polyclonal Antibody diluted at 1:1000



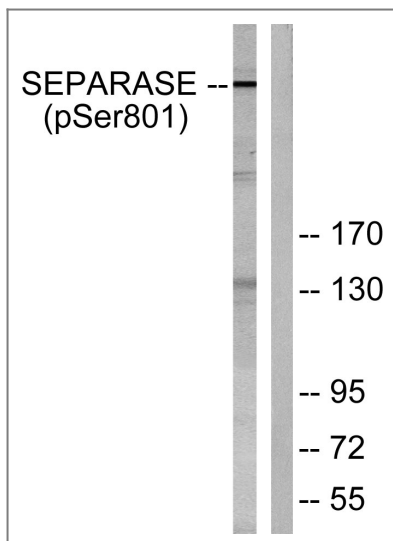
Enzyme-Linked Immunosorbent Assay (Phospho-ELISA) for Immunogen Phosphopeptide (Phospho-left) and Non-Phosphopeptide (Phospho-right), using SEPARASE (Phospho-Ser801) Antibody



Immunofluorescence analysis of HUVEC cells, using SEPARASE (Phospho-Ser801) Antibody. The picture on the right is blocked with the phospho peptide.



Immunohistochemistry analysis of paraffin-embedded human colon carcinoma, using SEPARASE (Phospho-Ser801) Antibody. The picture on the right is blocked with the phospho peptide.



Western blot analysis of lysates from 293 cells treated with EGF 200ng/ml 30', using SEPARASE (Phospho-Ser801) Antibody. The lane on the right is blocked with the phospho peptide.

Contact information

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Please scan the QR code to access additional product information:
Separase (Phospho Ser801) Rabbit pAb

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