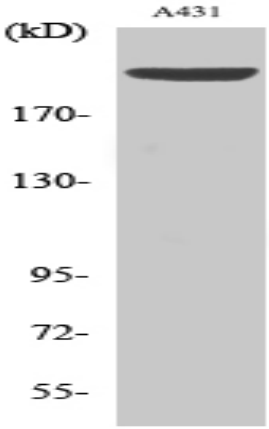
Best Tools for immunology Research

Separase (phospho Ser801) Polyclonal Antibody

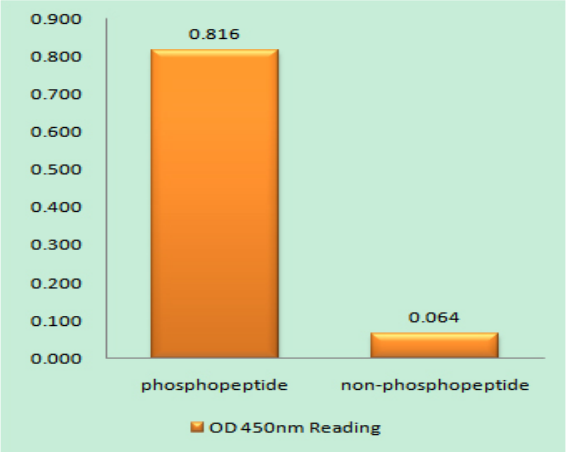
Catalog No :	YP0872
Reactivity :	Human;Mouse
Applications :	WB;IHC;IF;ELISA
Target :	Separase
Fields :	>>Cell cycle;>>Oocyte meiosis;>>Human T-cell leukemia virus 1 infection
Gene Name :	ESPL1
Protein Name :	Separin
Human Gene Id :	9700
Human Swiss Prot No :	Q14674
Mouse Gene Id :	105988
Mouse Swiss Prot No :	P60330
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.
Formulation :	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Source :	Polyclonal, Rabbit,IgG
Dilution :	WB 1:500 - 1:2000. IHC 1:100 - 1:300. IF 1:200 - 1:1000. ELISA: 1:40000. Not yet tested in other applications.
Purification :	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.

Concentration :	1 mg/ml
Storage Stability :	-15°C to -25°C/1 year(Do not lower than -25°C)
Observed Band :	230kD
Cell Pathway :	Cell_Cycle_G1S;Cell_Cycle_G2M_DNA;Oocyte meiosis;
Background :	Stable cohesion between sister chromatids before anaphase and their timely separation during anaphase are critical for chromosome inheritance. In vertebrates, sister chromatid cohesion is released in 2 steps via distinct mechanisms. The first step involves phosphorylation of STAG1 (MIM 604358) or STAG2 (MIM 300826) in the cohesin complex. The second step involves cleavage of the cohesin subunit SCC1 (RAD21; MIM 606462) by ESPL1, or separase, which initiates the final separation of sister chromatids (Sun et al., 2009 [PubMed 19345191]).[supplied by OMIM, Nov 2010],
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 an 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
Subcellular Location :	Cytoplasm. Nucleus.
Expression :	Bone marrow,Epithelium,

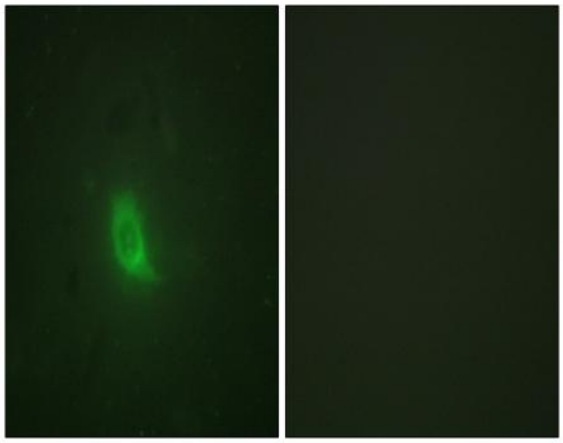
Products Images



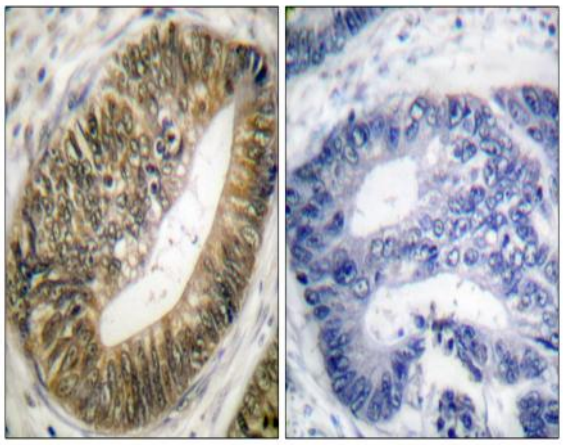
Western Blot analysis of various cells using Phospho-Separase (S801) Polyclonal Antibody diluted at 1:1000



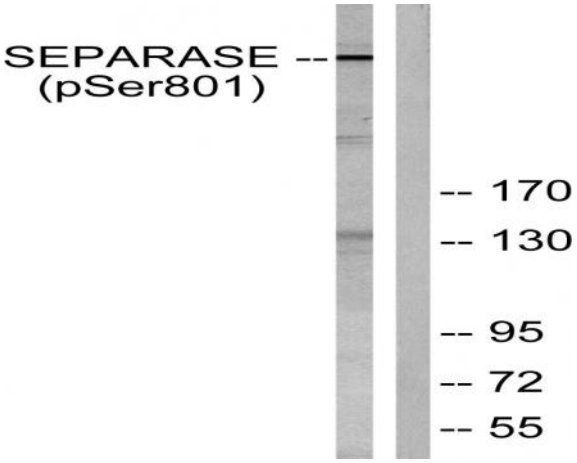
Enzyme-Linked Immunosorbent Assay (Phospho-ELISA) for Immunogen Phosphopeptide (Phospho-left) and Non-Phosphopeptide (Phospho-right), using SEPARASE (Phospho-Ser801) Antibody



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.