Cleaved Caspase-3 p12 (Asp175) Rabbit pAb

CatalogNo: YC0004 **Orthogonal Validated**

Key Features

Host Species
- Rabbit

Reactivity
- Human,Mouse,Rat

Applications
- WB,IF,IHC,ELISA

MW
- 12kD,35kD (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 1:500-2000
IHC 1:50-300
IF 1:50-300
ELISA 1:5000-20000

Basic Information

Clonality	Polyclonal

Immunogen Information

Immunogen	The antiserum was produced against synthesized peptide derived from human Caspase 3. AA range:157-206
Specificity	Cleaved-Caspase-3 p12 (D175) Polyclonal Antibody detects endogenous levels of fragment of activated Caspase-3 p12 protein resulting from cleavage adjacent to D175.

Target Information

Gene name CASP3

Protein Name Caspase3

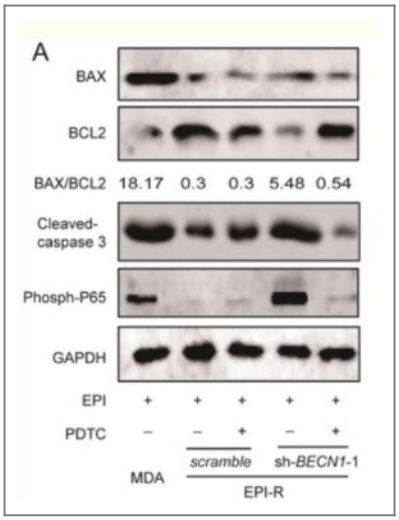
Organism	Gene ID	UniProt ID
Human	836;	P42574;
Mouse	12367;	P70677;
Rat	25402;	P55213;

Cellular Localization Cytoplasm.

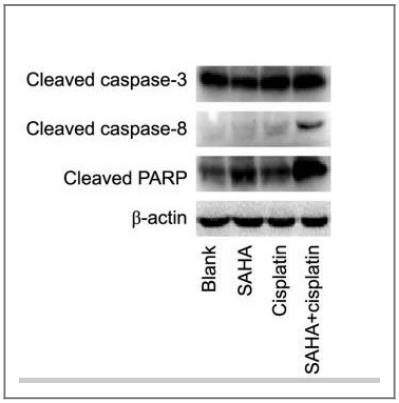
Tissue specificity Highly expressed in lung , spleen , heart , liver and kidney. Moderate levels in brain and skeletal muscle , and low in testis. Also found in many cell lines , highest expression in cells of the immune system.

Function Catalytic activity:Strict requirement for an Asp residue at positions P1 and P4. It has a preferred cleavage sequence of Asp-Xaa-Xaa-Asp-|- with a hydrophobic amino-acid residue at P2 and a hydrophilic amino-acid residue at P3 , although Val or Ala are also accepted at this position. ,enzyme regulation:Inhibited by isatin sulfonamides. ,Function:Involved in the activation cascade of caspases responsible for apoptosis execution. At the onset of apoptosis it proteolytically cleaves poly (ADP-ribose) polymerase (PARP) at a '216-Asp-|-Gly-217' bond. Cleaves and activates sterol regulatory element binding proteins (SREBPs) between the basic helix-loop-helix leucine zipper domain and the membrane attachment domain. Cleaves and activates caspase-6 , -7 and -9. Involved in the cleavage of huntingtin. ,PTM:Cleavage by granzyme B , caspase-6 , caspase-8 and caspase-10 generates the two active subunits. Additional processing of the propeptides is likely due to the autocatalytic activity of the activated protease. Active heterodimers between the small subunit of caspase-7 protease and the large subunit of caspase-3 also occur and vice versa. ,PTM:S-nitrosylated on its catalytic site cysteine in unstimulated human cell lines and denitrosylated upon activation of the Fas apoptotic pathway , associated with an increase in intracellular caspase activity. Fas therefore activates caspase-3 not only by inducing the cleavage of the caspase zymogen to its active subunits , but also by stimulating the denitrosylation of its active site thiol. ,similarity:Belongs to the peptidase C14A family. ,subunit:Heterotetramer that consists of two anti-parallel arranged heterodimers , each one formed by a 17 kDa (p17) and a 12 kDa (p12) subunit. ,tissue specificity:Highly expressed in lung , spleen , heart , liver and kidney. Moderate levels in brain and skeletal muscle , and low in testis. Also found in many cell lines , highest expression in cells of the immune system. ,

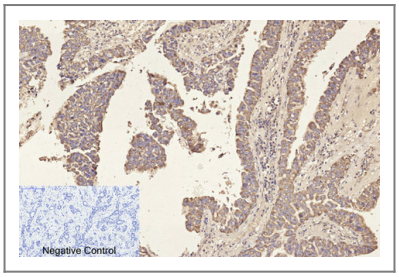
Validation Data



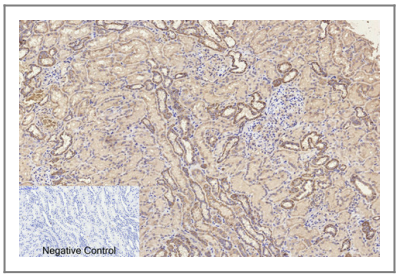
Zhang, Li-han, et al. "Enhanced autophagy reveals vulnerability of P-gp mediated epirubicin resistance in triple negative breast cancer cells." Apoptosis 21.4 (2016): 473-488.



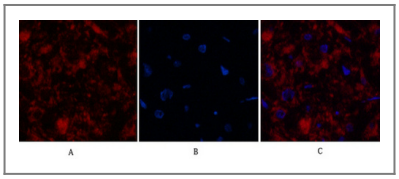
Hou, Mengyi, et al. "Synergistic antitumor effect of suberoylanilide hydroxamic acid and cisplatin in osteosarcoma cells." Oncology letters 16.4 (2018): 4663-4670.



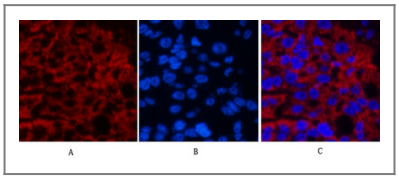
Immunohistochemical analysis of paraffin-embedded Human-liver-cancer tissue. 1,Cleaved-Caspase-3 p12 (D175) Polyclonal Antibody was diluted at 1:200 (4℃ overnight). 2, Sodium citrate pH 6.0 was used for antibody retrieval (>98℃,20min). 3,Secondary antibody was diluted at 1:200 (room tempeRature, 30min). Negative control was used by secondary antibody only.



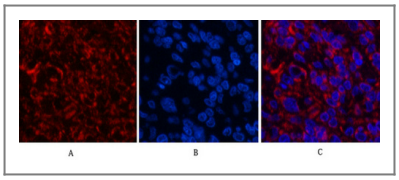
Immunohistochemical analysis of paraffin-embedded Human-kidney tissue. 1,Cleaved-Caspase-3 p12 (D175) Polyclonal Antibody was diluted at 1:200 (4℃ overnight). 2, Sodium citrate pH 6.0 was used for antibody retrieval (>98℃,20min). 3,Secondary antibody was diluted at 1:200 (room tempeRature, 30min). Negative control was used by secondary antibody only.



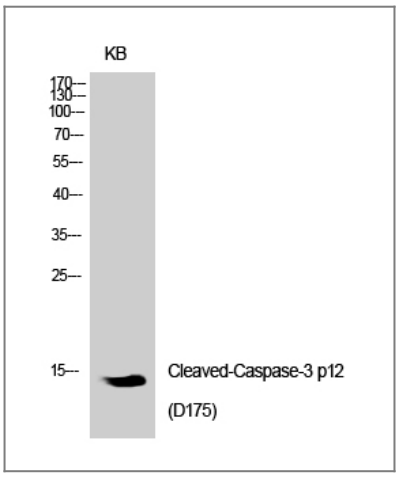
Immunofluorescence analysis of Human-kidney-cancer tissue. 1,Cleaved-Caspase-3 p12 (D175) Polyclonal Antibody (red) was diluted at 1:200 (4℃ overnight). 2, Cy3 labled Secondary antibody was diluted at 1:300 (room temperature, 50min).3, Picture B: DAPI (blue) 10min. Picture A:Target. Picture B: DAPI. Picture C: merge of A+B



Immunofluorescence analysis of Human-liver-cancer tissue. 1,Cleaved-Caspase-3 p12 (D175) Polyclonal Antibody (red) was diluted at 1:200 (4℃ overnight). 2, Cy3 labled Secondary antibody was diluted at 1:300 (room temperature, 50min).3, Picture B: DAPI (blue) 10min. Picture A:Target. Picture B: DAPI. Picture C: merge of A+B



Immunofluorescence analysis of Human-lung-cancer tissue. 1,Cleaved-Caspase-3 p12 (D175) Polyclonal Antibody (red) was diluted at 1:200 (4℃ overnight). 2, Cy3 labled Secondary antibody was diluted at 1:300 (room temperature, 50min).3, Picture B: DAPI (blue) 10min. Picture A:Target. Picture B: DAPI. Picture C: merge of A+B



Western Blot analysis of KB cells using Cleaved-Caspase-3 p12 (D175) Polyclonal Antibody diluted at 1:1000

Contact information

Orders:	order.cn@immunoway.com
Support:	support.cn@immunoway.com
Telephone:	400-8787-807(China)
Website:	http://www.immunoway.com.cn
Address:	2200 Ringwood Ave San Jose, CA 95131 USA

Please scan the QR code to access additional product information:
Cleaved Caspase-3 p12 (Asp175) Rabbit pAb