

Caspase-3 (5H10) Mouse mAb

CatalogNo: YM3624

Key Features

Host Species

- Mouse

Reactivity

- Human, Mouse, Rat

Applications

- WB, IHC-p, IF (paraffin section)

MW

- 17, 32 (Observed)

Storage

Storage* -20°C/1 year, Ship by ice bag

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

Recommended Dilution Ratios

WB: 500-2000

IHC 1:100-200

Basic Information

Clonality Monoclonal

Clone Number 5H10

Immunogen Information

Immunogen Synthetic Peptide of Caspase-3 at AA range of 20-100

Specificity Caspase-3 protein detects endogenous levels of CASP3

Target Information

Gene name CASP3

Protein Name Caspase3

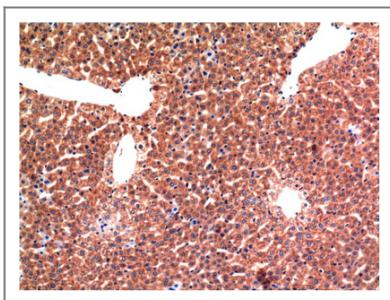
| Organism | Gene ID | UniProt ID |
|----------|-------------------------|--------------------------|
| Human | 836 ; | P42574 ; |
| Mouse | 12367 ; | P70677 ; |
| Rat | 12367 ; | P55213 ; |

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



Immunohistochemical analysis of paraffin-embedded Mouse Liver Tissue using Caspase-3 Mouse mAb diluted at 1:200.

| Contact information

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Caspase-3 (5H10)
Mouse mAb

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