

## Anti-Caspase-3 Polyclonal Antibody

### Product Details

Ig Type: IgG  
Reactivity: Human,Mouse,Rat  
Molecular Weight: Theoretical: 17/32 kDa. Actual: 37 kDa.  
Purification: Protein A purified

### Applications

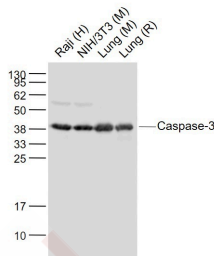
#### 1. Sample:

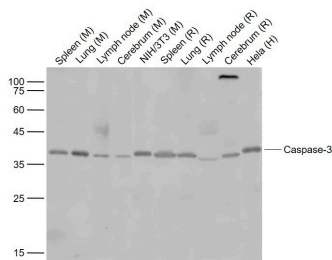
Lane 1: Raji (Human) Cell Lysate at 30 µg  
Lane 2: NIH/3T3 (Mouse) Cell Lysate at 30 µg  
Lane 3: Lung (Mouse) Lysate at 40 µg  
Lane 4: Lung (Rat) Lysate at 40 µg  
Primary: Anti-Caspase-3 (TMAB-00285) at 1/1000 dilution  
Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution  
Predicted band size: 35 kDa  
Observed band size: 37 kDa

#### 2. Sample:

Lane 1: Spleen (Mouse) Lysate at 40 µg  
Lane 2: Lung (Mouse) Lysate at 40 µg  
Lane 3: LymphNode (Mouse) Lysate at 40 µg  
Lane 4: Cerebrum (Mouse) Lysate at 40 µg  
Lane 5: NIH/3T3 (Mouse) Cell Lysate at 30 µg  
Lane 6: Spleen (Rat) Lysate at 40 µg  
Lane 7: Lung (Rat) Lysate at 40 µg  
Lane 8: LymphNode (Rat) Lysate at 40 µg  
Lane 9: Cerebrum (Rat) Lysate at 40 µg  
Lane 10: Hela (Human) Cell Lysate at 30 µg  
Primary: Anti-Caspase-3 (TMAB-00285) at 1/1000 dilution  
Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution  
Predicted band size: 35 kDa  
Observed band size: 37 kDa

Verified Activity:





Application: ELISA,WB

Recommended WB: 1:500-2000; ELISA: 1:5000-10000

### Properties

Stability & Storage: Store at -20°C or -80°C for 12 months. Avoid repeated freeze-thaw cycles.

Shipping: Shipping with blue ice.

### Antigen Details

Immunogen: KLH conjugated synthetic peptide: human caspase-3 p17 subunit

Antigen Species: Human

Gene ID: 836

Uniprot ID: P42574

Synonyms: apopain;CPP32B;Yama;CPP32;SCA-1

Biology Area: Caspases, Metabolism, Caspases, Caspases, Other proteases, Apoptosis

### Research Background

The caspase family of cysteine proteases play a key role in apoptosis. Caspase 3 is the most extensively studied apoptotic protein among caspase family members. Caspase 3 is synthesized as inactive pro enzyme that is processed in cells undergoing apoptosis by self proteolysis and/or cleavage by other upstream proteases (e.g. Caspases 8, 9 and 10). The processed form of Caspase 3 consists of large (17kDa) and small (12kDa) subunits which associate to form an active enzyme. Caspase 3 is cleaved at Asp28 Ser29 and Asp175 Ser176. The active Caspase 3 proteolytically cleaves and activates other caspases (e.g. Caspases 6, 7 and 9), as well as relevant targets in the cells (e.g. PARP and DFF). Alternative splicing of this gene results in two transcript variants which encode the same protein. In immunohistochemical studies Caspase 3 expression has been shown to be widespread but not present in all cell types (e.g. commonly reported in epithelial cells of skin, renal proximal tubules and collecting ducts). Differences in the level of Caspase 3 have been reported in cells of short lived nature (eg germinal centre B cells) and those that are long lived (eg mantle zone B cells). Caspase 3 is the predominant caspase involved in the cleavage of amyloid beta 4A precursor protein, which is associated with neuronal death in Alzheimer's disease.

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