Data Sheet (Cat.No.TMAB-03646)

Anti-Caspase 3 precursor Polyclonal Antibody

Product Details

Ig Type:	IgG
Reactivity:	Human,Mouse,Rat
Molecular Weight:	Theoretical: 32 kDa. Actual: 38 kDa.
Purification:	Protein A purified

Applications

Verified Activity:

1. Sample:
Lane 1: Spleen (Mouse) Lysate at 40 µg
Lane 2: Lung (Mouse) Lysate at 40 µg
Lane 3: Lymph node (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: Lymph node (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-03646) at 1/1000 dilution
Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution
Predicted band size: 35 kD
Observed band size: 37 kD
2. 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-03646) at 1/1000 dilution
Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution
Predicted band size: 35 kD
Observed band size: 37 kD
3. Paraformaldehyde-fixed, paraffin embedded Mouse Spleen; Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; The section was incubated with Caspase 3 precursor Polyclonal Antibody, Unconjugated (TMAB-03646) at 1: 200 overnight at 4°C, followed by conjugation to the Goat Anti-Rabbit IgG H&L Secondary Antibody-HRP and DAB staining.
4. Paraformaldehyde-fixed, paraffin embedded Rat Spleen; Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; The section was incubated with Caspase 3 precursor Polyclonal Antibody, Unconjugated (TMAB-03646) at 1: 200 overnight at 4°C, followed by conjugation to the Goat Anti-Rabbit IgG H&L Secondary Antibody-HRP and DAB staining.
5. Paraformaldehyde-fixed, paraffin embedded Human Tonsil; Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; The section was incubated with Caspase 3 precursor Polyclonal Antibody, Unconjugated (TMAB-03646) at 1: 200 overnight at 4°C, followed by conjugation to the Goat Anti-Rabbit IgG H&L Secondary Antibody-HRP and DAB staining.

Application:	WB,IHC-P,ELISA,IHC-Fr,IF
Recommended	WB: 1:500-2000; IHC-P: 1:200-800; ELISA: 1:5000-10000; IHC-Fr: 1:200-800; IF: 1:200-800

Properties

Stability & Storage:	Store at 2°C-8°C for 1 month. 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 precursor
Antigen Species:	Human
Gene ID:	836
Uniprot ID:	P42574

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.

Tel:781-999-4286 E_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481