# Data Sheet (Cat.No.TMAB-03674)

## Anti-caspase-9 p10 Polyclonal Antibody

### Product Details

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| Ig Type: | IgG |
| Reactivity: | Human,Mouse,Rat (predicted:Chicken,Dog,Pig,Cow,Horse,Rabbit) |
| Molecular Weight: | Theoretical: 10/46 kDa. Actual: 46 kDa. |
| Purification: | Protein A purified |

### Applications

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| Verified Activity: | 1. Tissue/cell: rat brain tissue; 4% Paraformaldehyde-fixed and paraffin-embedded; Antigen retrieval: citrate buffer (0.01 M, pH 6.0), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30 min; Blocking buffer (normal goat serum) at 37℃ for 20 min;<br>Incubation: Anti-caspase-9 p10 Polyclonal Antibody, Unconjugated (TMAB-03674) 1:200, overnight at 4℃, followed by conjugation to the secondary antibody and DAB staining<br>2. Blank control: K562 (fixed with 80% methanol (5 min) and and then permeabilized with 0.01 M Pcaspase-9 p10 antibody (TMAB-03674, Green); Dilution: 1 μg in 100 μL 1X PBS containing 0.5% BSA; Isotype Control Antibody: Rabbit IgG (orange),used under the same conditions; Secondary Antibody: Goat anti-rabbit IgG-FITC (white blue), Dilution: 1:200 in 1 X PBS containing 0.5% BSA.<br>3. Paraformaldehyde-fixed, paraffin embedded (rat pancreas); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30 min; Antibody incubation with (caspase-9 p10) Polyclonal Antibody, Unconjugated (TMAB-03674) at 1:200 overnight at 4°C, followed by operating according to SP Kit (Rabbit) instructionsand DAB staining.<br>4. Sample:<br>Lane 1: Esophagus (Mouse) Lysate at 40 ug<br>Lane 2: Stomach (Mouse) Lysate at 40 ug<br>Lane 3: Urinary bladder (Mouse) Lysate at 40 ug<br>Primary: Anti-caspase-9 p10 (TMAB-03674) at 1/1000 dilution<br>Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution<br>Predicted band size: 10/46 kD<br>Observed band size: 46 kD<br>5. Blank control: K562.<br>Primary Antibody (green line): Rabbit Anti-caspase-9 p10 antibody (TMAB-03674)<br>Dilution: 2 μg /10^6 cells;<br>Isotype Control Antibody (orange line): Rabbit IgG.<br>Secondary Antibody : Goat anti-rabbit IgG-FITC<br>Dilution: 0.5μg /test.<br>Protocol<br>The cells were fixed with 4% PFA (10 min at room temperature) and then permeabilized with 90% ice-cold methanol for 20 min at -20℃. The cells were then incubated in 5% BSA to block non-specific protein-protein interactions for 30 min at room temperature. Cells stained with Primary Antibody for 30 min at room temperature. The secondary antibody used for 40 min at room temperature. Acquisition of 20,000 events was performed. |

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| Application: | WB,IHC-P,IHC-Fr,IF,FCM |
| Recommended | WB: 1:500-2000; IHC-P: 1:100-500; IHC-Fr: 1:100-500; IF: 1:100-500; FCM: 1μg/Test |

## Properties

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| 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

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| Immunogen: | KLH conjugated synthetic peptide: human caspase-9 subunit p10 |
| Antigen Species: | Human |
| Gene ID: | 842 |
| Uniprot ID: | P55211 |

## Research Background

Caspase 9 (also known as ICE like apoptotic protease 6 (ICE LAP6), apoptotic protease Mch6, and apoptotic protease activating factor 3 (Apaf3)) is a member of the peptidase family C14 that contains a CARD domain. This caspase is active as a heterotetramer and has been reported to have two isoforms. ProCaspase 9 has been reported to be approximately 47 kD. This caspase is present in the cytosol and, upon activation, translocates to the mitochondria. Caspase 9 is involved in the caspase activation cascade responsible for apoptosis execution and cleaves/activates Caspase 3 and Caspase 6. Caspase 9 is inhibited by the dominant negative isoform, BclXL, cIAP1, cIAP2, XIAP, and Livin. This caspase becomes activated when recruited to Apaf1/cytochrome c complex, and following cleavage by Apaf1, granzyme B, Caspase 3, possibly Caspase 8 and Caspase 10 into large p37 and small p10 subunits. Caspase 9 intereacts with BIRC7 and has been shown to cleave PARP and vimentin.



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