

Rabbit Anti-APAF1 (NT)antibody

SL0059R

Product Name APAF1(NT)

Chinese Name 凋亡蛋白活性因子-1 抗体 (N 端)

Alias APAF 1; APAF1; APAF-1; Apoptotic peptidase activating factor 1; Apoptotic protease activating factor 1; CED4; KIAA0413; APAF_HUMAN; Apoptotic protease-activating factor 1.

Research Area Tumour Cell biology Neurobiology Signal transduction Apoptosis

Immunogen Species Rabbit

Clonality Polyclonal

React Species Human, Mouse, Rat, (predicted: Chicken, Dog, Cow, Horse,)

WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,ICC/IF=1:100-500,IF=1:100-500,Flow-Cytometry
(Paraffin sections need antigen repair)

Applications not yet tested in other applications.
optimal dilutions/concentrations should be determined by the end user.

Theoretical molecular weight 137kDa

Cellular localization cytoplasmic

Form Liquid

Concentration 1mg/ml

immunogen KLH conjugated synthetic peptide derived from human Apaf-1: 13-80/1248

Lsotype IgG

Purification affinity purified by Protein A

Buffer Solution 1M TBS(pH7.4) with 1% BSA, 3% Proclin300 and 50% Glycerol.

Storage Shipped at 4°C. Store at -20 °C for one year. Avoid repeated freeze/thaw cycles.

Attention This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

PubMed [PubMed](#)

Product This gene encodes a cytoplasmic protein that initiates apoptosis. This protein contains several coiled-coil motifs.

Detail

WD-40 domain, a caspase recruitment domain (CARD), and an ATPase domain(NB-ARC). Upon binding of cytochrome c and dATP, this protein forms an oligomeric apoptosome. The apoptosome binds a caspase 9 preproprotein, releasing its mature, activated form. Activated caspase 9 stimulates the caspase cascade that commits the cell to apoptosis. Alternative splicing results in several transcripts encoding different isoforms. [provided by RefSeq, Jul 2008].

Function:

Oligomeric Apaf-1 mediates the cytochrome c-dependent autocatalytic activation of pro-caspase-9 leading to the activation of caspase-3 and apoptosis. This activation requires ATP. Isoform 6 is less active in inducing apoptosis.

Subunit:

Monomer. Oligomerizes upon binding of cytochrome c and dATP. Oligomeric Apaf-1 and pro-caspase-9 interact to each other via their respective NH₂-terminal CARD domains and consecutively mature caspase-9 from the complex. Pro-caspase-3 is recruited into the Apaf-1-pro-caspase-9 complex via interaction with pro-caspase-9. Interacts with APIP. Interacts (via CARD and NACHT domains) with NAIP/BIR2 (via NACHT domain).

Subcellular Location:

Cytoplasm.

Tissue Specificity:

Ubiquitous. Highest levels of expression in adult spleen and peripheral blood leukocytes, and in kidney and lung. Isoform 1 is expressed in heart, kidney and liver.

Similarity:

Contains 1 CARD domain.
Contains 1 NB-ARC domain.
Contains 13 WD repeats.

SWISS:

O14727

Gene ID:

317

Database links:

[Entrez Gene: 317](#) Human

[Entrez Gene: 11783](#) Mouse

[Entrez Gene: 78963](#) Rat

[Omim: 602233](#) Human

[SwissProt: O14727](#) Human

[SwissProt: O88879](#) Mouse

[SwissProt: Q9EPV5](#) Rat

[Unigene: 728891](#) Human

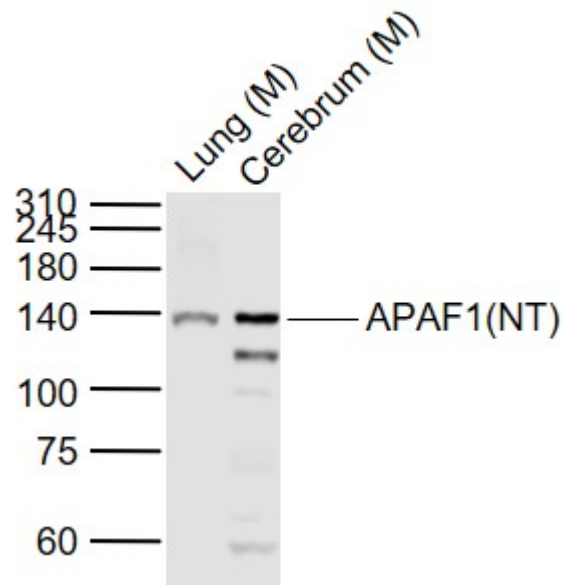
[Unigene: 220289](#) Mouse

[Unigene: 64522](#) Rat

Apaf-1 (Apoptosis protease activating factor-1) 调节细胞色素 C 依赖的 Caspase-9 原的自杀，导致 Caspase-3 的激活和引起凋亡。

Apaf-1 在成年人的脾脏、外周血白细胞、肾脏、肺和胎儿脑、肾、肺中高水平表达。

Product Picture



Sample:

Lane 1: Lung (Mouse) Lysate at 40 ug

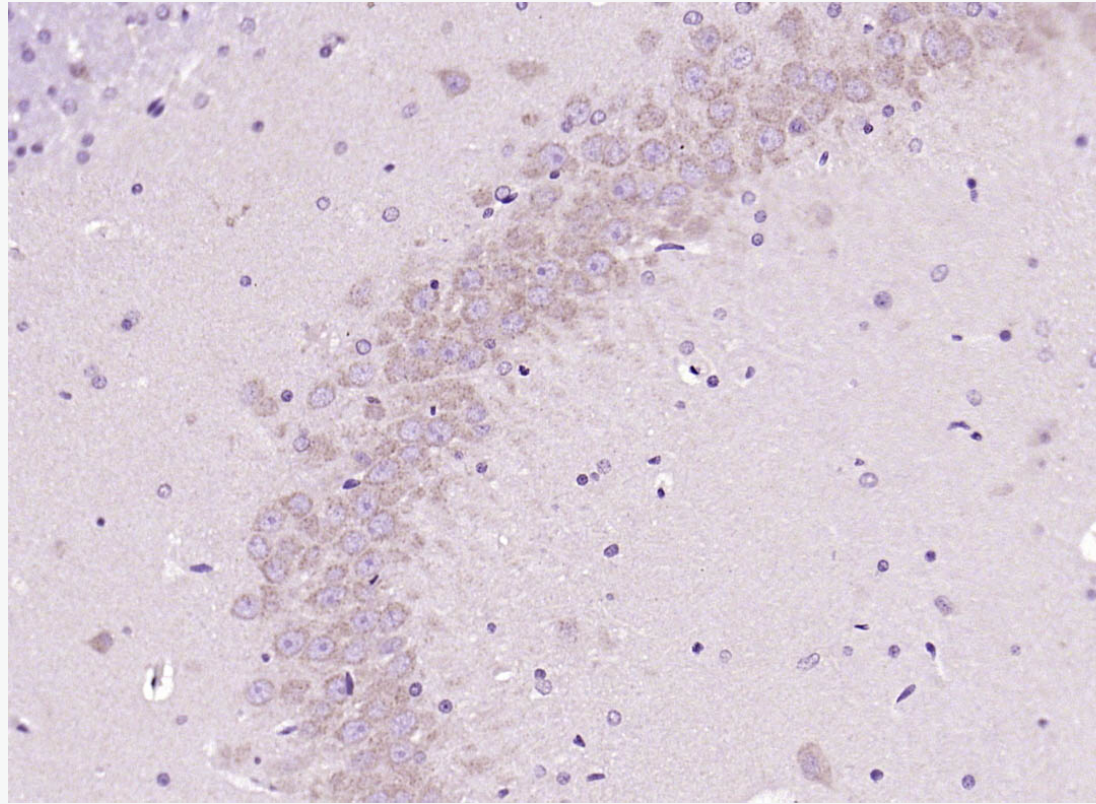
Lane 2: Cerebrum (Mouse) Lysate at 40 ug

Primary: Anti-APAF1(NT) (SL0059R) at 1/1000 dilution

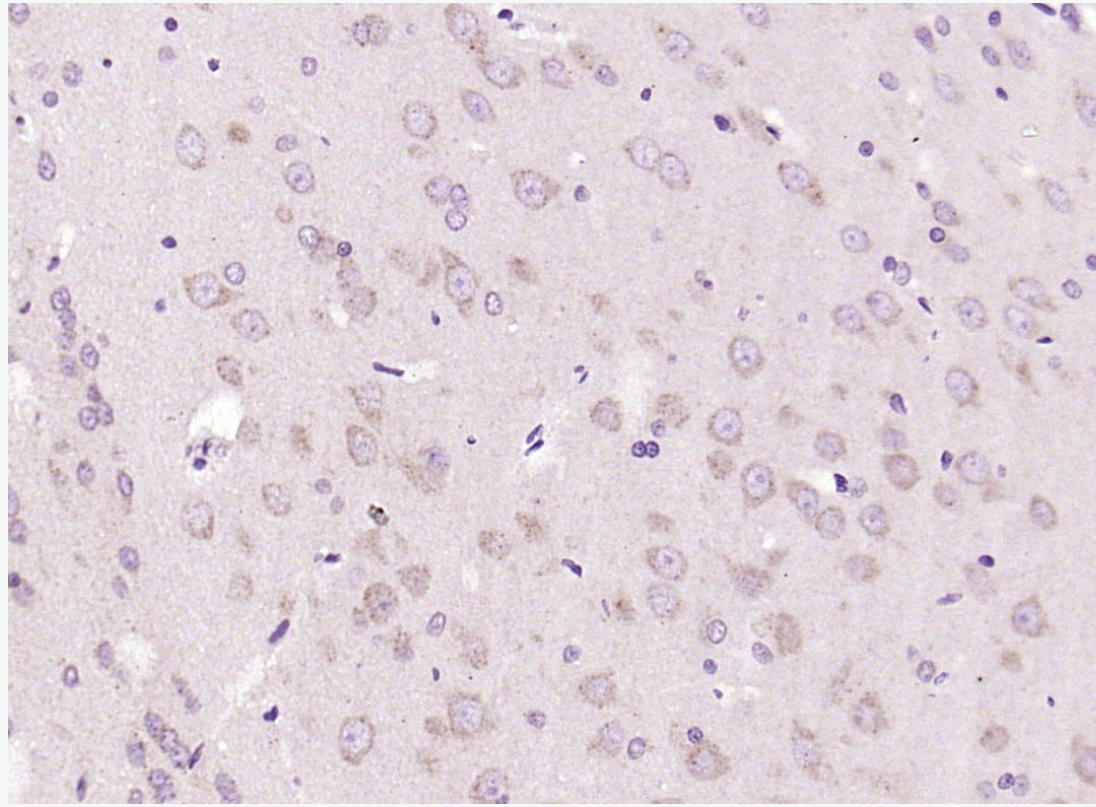
Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 140 kD

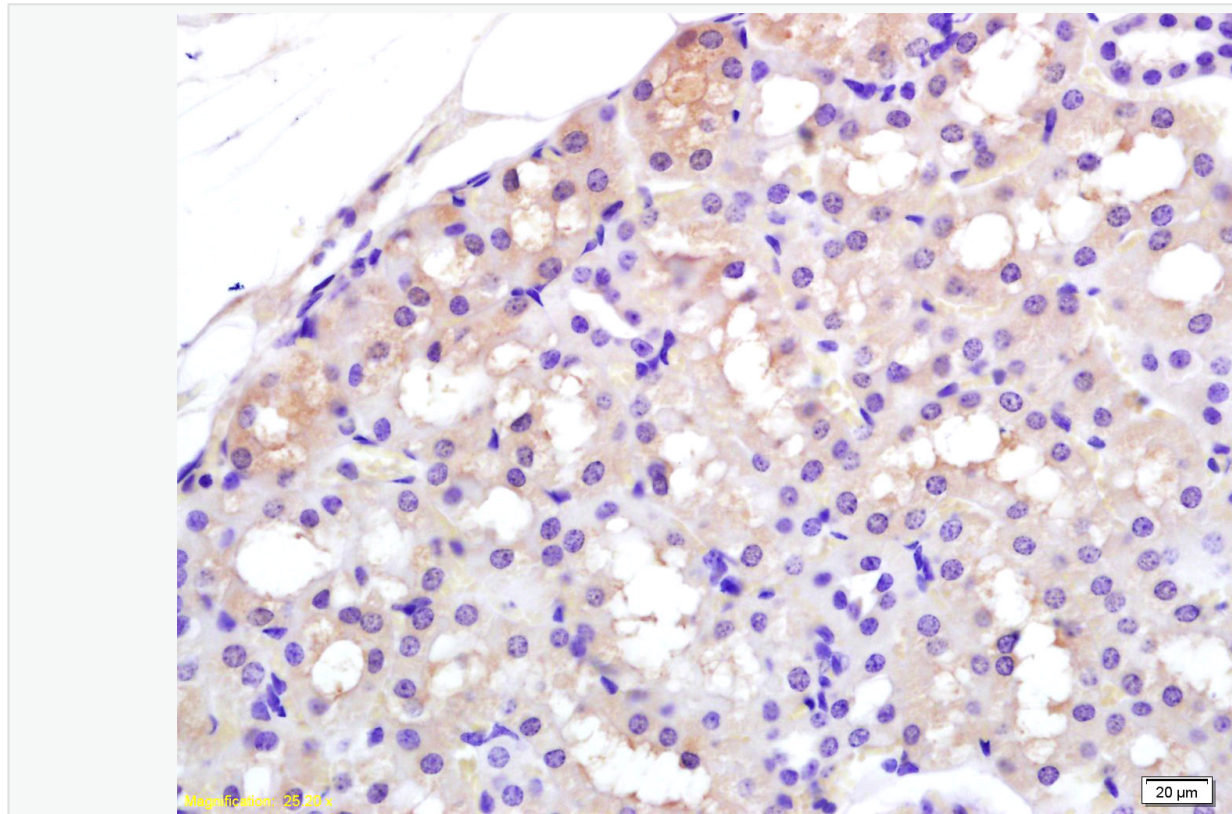
Observed band size: 140 kD



Paraformaldehyde-fixed, paraffin embedded (rat brain); Antigen retrieval by boiling in sodium buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 min; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (APAF1(N Polyclonal Antibody, Unconjugated (SL0059R) at 1:200 overnight at 4°C, followed by operation according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.



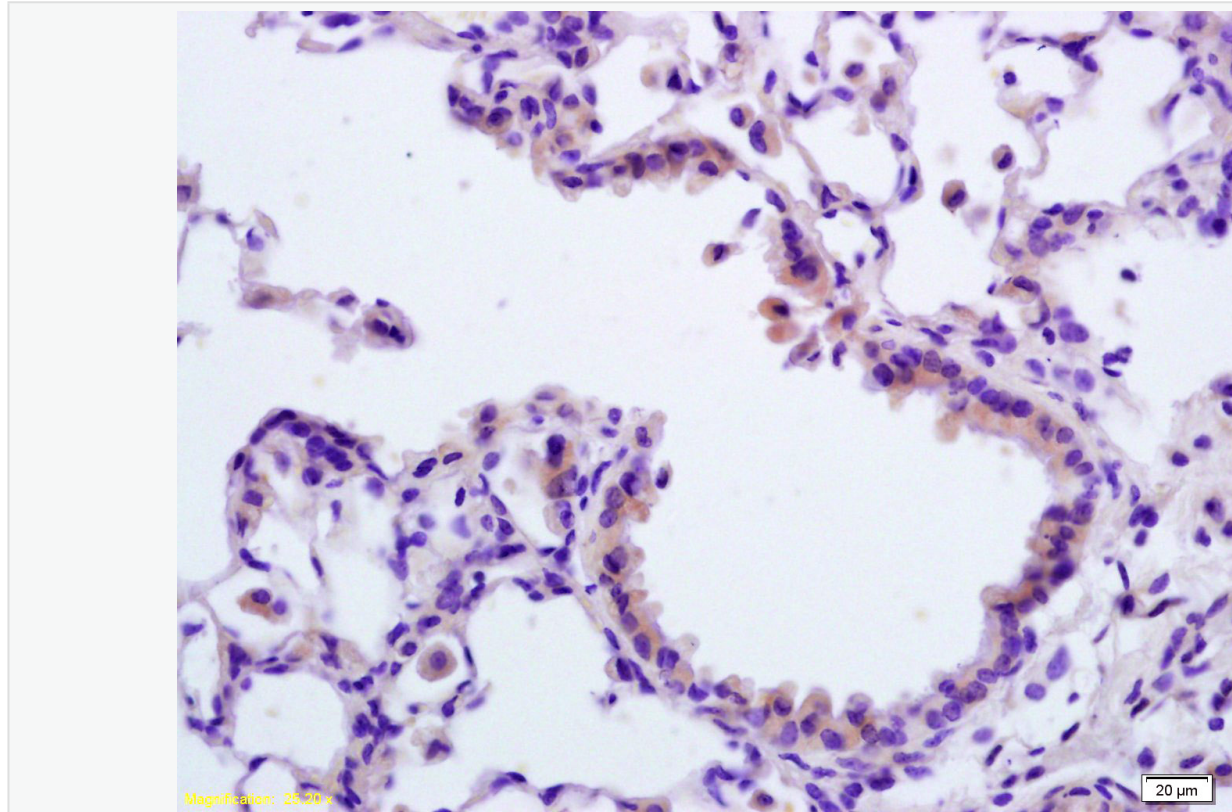
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Tissue/cell: rat kidney tissue; 4% Paraformaldehyde-fixed and paraffin-embedded;

Antigen retrieval: citrate buffer (1M, pH 6.0), Boiling bathing for 15min; Block endogenous by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37°C for 1h

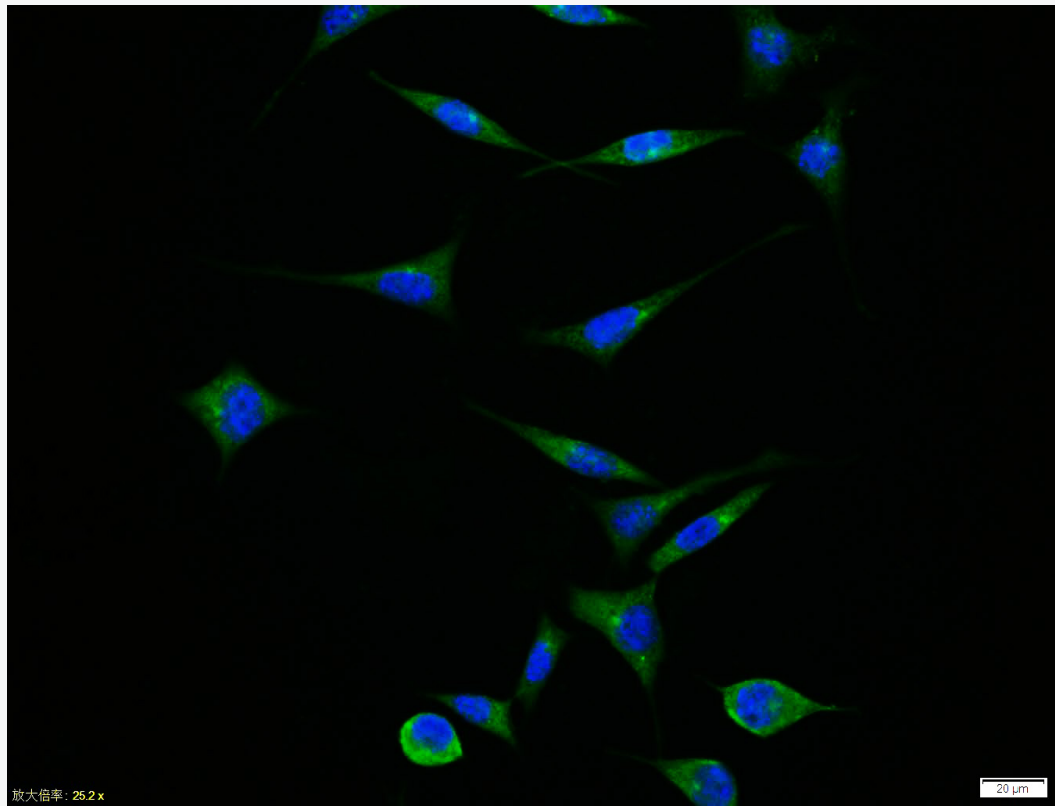
Incubation: Anti-APAF1(NT) Polyclonal Antibody, Unconjugated(SL0059R) 1:200, overnight at 4°C followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining



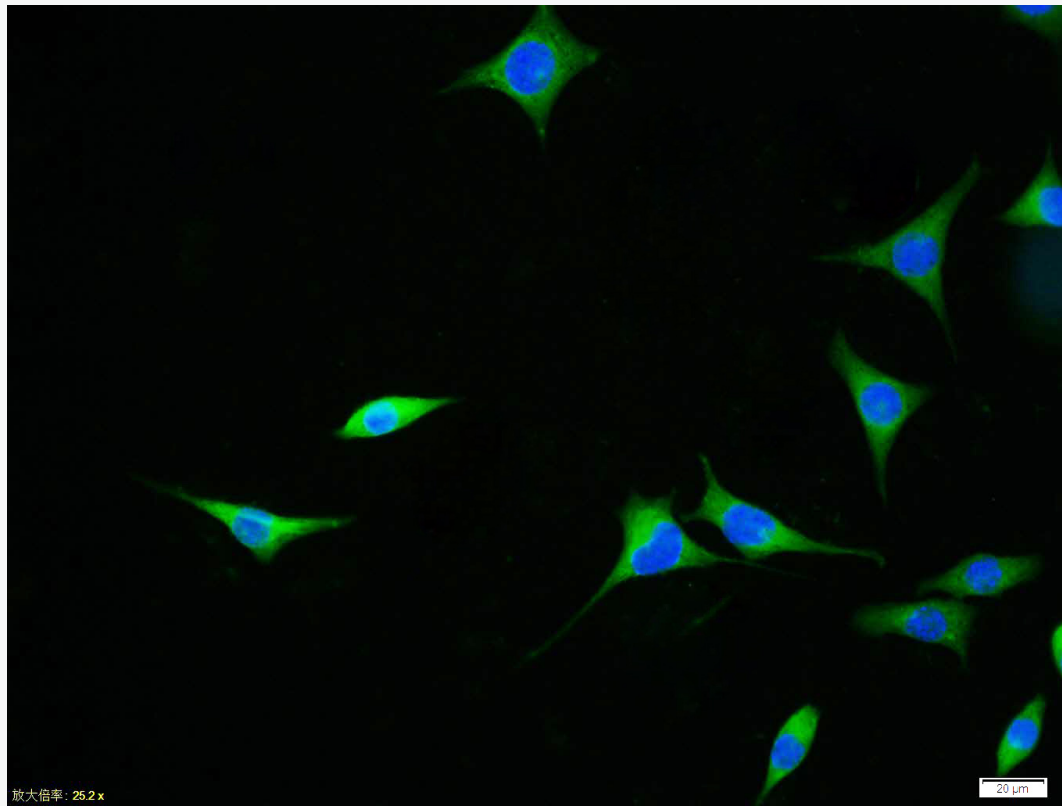
Tissue/cell: rat lung tissue; 4% Paraformaldehyde-fixed and paraffin-embedded;

Antigen retrieval: citrate buffer (1M, pH 6.0), Boiling bathing for 15min; Block endogenous by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37°C for 1h

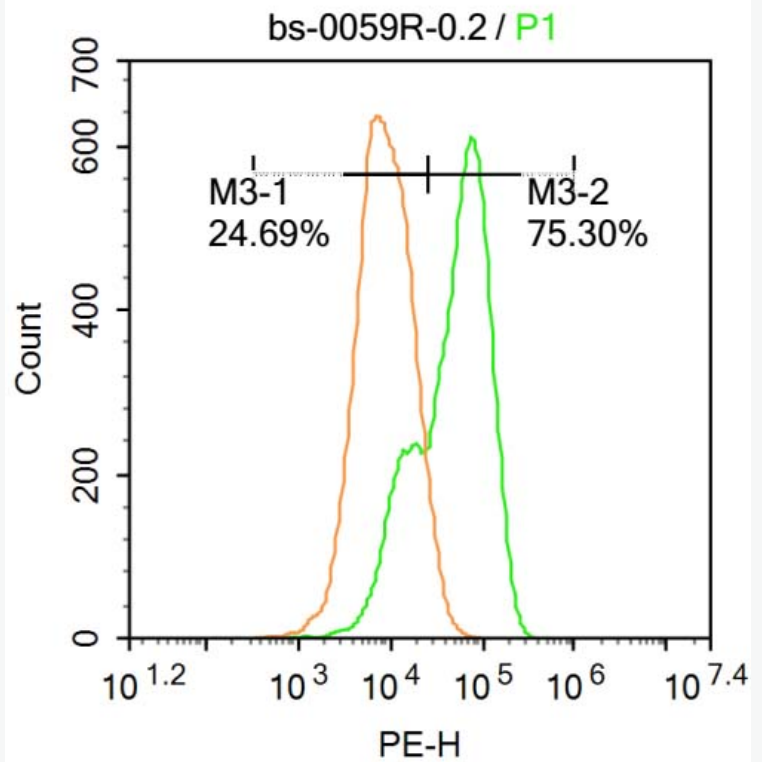
Incubation: Anti-APAF1(NT) Polyclonal Antibody, Unconjugated(SL0059R) 1:200, overnight at 4°C followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining



Tissue/cell:SH-SY5Y cell; 4% Paraformaldehyde-fixed; Triton X-100 at room temperature for 30 min; Blocking buffer (normal goat serum,C-0005) at 37°C for 20 min; Antibody incubation with (A) polyclonal Antibody, Unconjugated (SL0059R) 1:100, 90 minutes at 37°C; followed by a FITC-Goat Anti-Rabbit IgG antibody at 37°C for 90 minutes, DAPI (blue, C02-04002) was used to stain nuclei.



Tissue/cell:SH-SY5Y cell; 4% Paraformaldehyde-fixed; Triton X-100 at room temperature for 30 min; Blocking buffer (normal goat serum,C-0005) at 37°C for 20 min; Antibody incubation with (A) polyclonal Antibody, Unconjugated (SL0059R) 1:100, 90 minutes at 37°C; followed by a FITC Goat Anti-Rabbit IgG antibody at 37°C for 90 minutes, DAPI (blue, C02-04002) was used to stain nuclei.



U-937 cells were fixed with 4% PFA for 10min at room temperature, permeabilized with 20% I for 10 min at room temperature, and incubated in 5% BSA blocking buffer for 30 min at room temperature. Cells were then stained with APAF1(NT) Antibody(SL0059R) at 1:500 dilution in blocking buffer and secondary antibody for 30 min at room temperature, washed twice with 2% BSA in PBS, followed by secondary antibody incubation for 40 min at room temperature. Acquisitions of 20,000 events were performed. Cells were stained with primary antibody (green), and isotype control (orange).