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Rabbit Anti-Phospho-MLK3 (Thr277 + Ser281) antibody

SL3280R

Product Name:	Phospho-MLK3 (Thr277 + Ser281)
Chinese Name:	磷酸化丝氨酸/苏氨酸蛋白激酶MLK3抗体
Alias:	MLK3 (phospho T277 + S281); MEKK11; MGC17114; Mitogen-activated protein kinase kinase kinase 11; Mixed lineage kinase 3; Mixed lineage protein kinase 3; Mlk-3; Mlk3; Protein tyrosine kinase PTK1; PTK1; RHOE; SH3 domain containing proline rich kinase; SPRK; Src-homology 3 domain-containing proline-rich kinase; 2610017K16Rik; EC 2.7.11.25; M3K11_HUMAN.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,Dog,Pig,Cow,Rabbit,Guinea Pig,
Applications:	ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800Flow-Cyt=1ug/TestIF=1:100-500（Paraffin sections need antigen repair） not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	93kDa
Cellular localization:	cytoplasmic
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthesised phosphopeptide derived from human MLK3 around the phosphorylation site of Thr277/Ser281:K(p-T)TQM(p-S)AA
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

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PubMed:	PubMed
Product Detail:	Members of the mixed-lineage kinase (MLK) family (including MLK1, MLK2, MLK3, and dual leucine zipper kinase [DLK]) are serine/threonine protein kinases that are expressed in multiple cell types. MLK3 is activated by phosphorylation in response to stress stimuli (e.g., inflammatory responses, UV, chemical stress) that are coupled to the small GTPase, Cdc42/rac. MLK3 is a multifunctional kinase that plays an essential role in several signaling pathways, including mitogen-activated protein kinase (i.e. activation of JNK and p38), IkappaB/NFkappaB, and p70 S6 kinase. Indeed MLK3 signaling occurs through multiple signaling domains in this protein kinase including (from N- to C-terminal) a glycine-rich domain, Src homology 3 (SH3) domain, a kinase domain, a zipper domain, a Cdc42/rac interactive binding (CRIB) domain and a Pro/Ser/Thr-rich domain. Phosphorylation of MLK3 occurs on multiple residues including threonine 277 and serine 281 within the activation loop of the kinase domain. **Function:** Activates the JUN N-terminal pathway. Required for serum-stimulated cell proliferation and for mitogen and cytokine activation of MAPK14 (p38), MAPK3 (ERK) and MAPK8 (JNK1). Plays a role in mitogen-stimulated phosphorylation and activation of BRAF, but does not phosphorylate BRAF directly. Influences microtubule organization during the cell cycle. **Subunit:** Homodimer; undergoes dimerization during activation. **Subcellular Location:** Cytoplasm, cytoskeleton, centrosome. Note=Location is cell cycle dependent. **Tissue Specificity:** Expressed in a wide variety of normal and neoplastic tissues including fetal lung, liver, heart and kidney, and adult lung, liver, heart, kidney, placenta, skeletal muscle, pancreas and brain. **Post-translational modifications:** Autophosphorylation on serine and threonine residues within the activation loop plays a role in enzyme activation. Thr-277 is likely to be the main autophosphorylation site. Phosphorylation of Ser-555 and Ser-556 is induced by CDC42. **Similarity:** Belongs to the protein kinase superfamily. STE Ser/Thr protein kinase family. MAP kinase kinase kinase subfamily. Contains 1 protein kinase domain. Contains 1 SH3 domain. **SWISS:** Q16584

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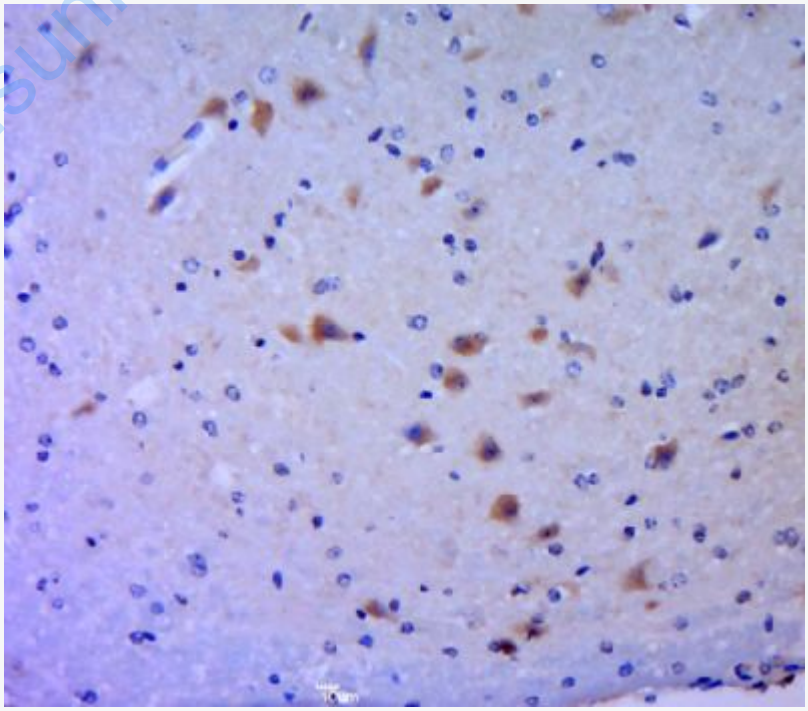
	Gene ID: 4296 **Database links:** Entrez Gene: 4296Human Entrez Gene: 26403Mouse Omim: 600050Human SwissProt: Q16584Human SwissProt: Q6P2G4Human SwissProt: Q80XI6Mouse Unigene: 502872Human Unigene: 185026Mouse **Important Note:** This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications. MLK3是JNK蛋白上游的重要活化因子，通过直接磷酸化并激活中游MKK4／7蛋白激酶，从而激活JNK应激信号通路。
Picture:	

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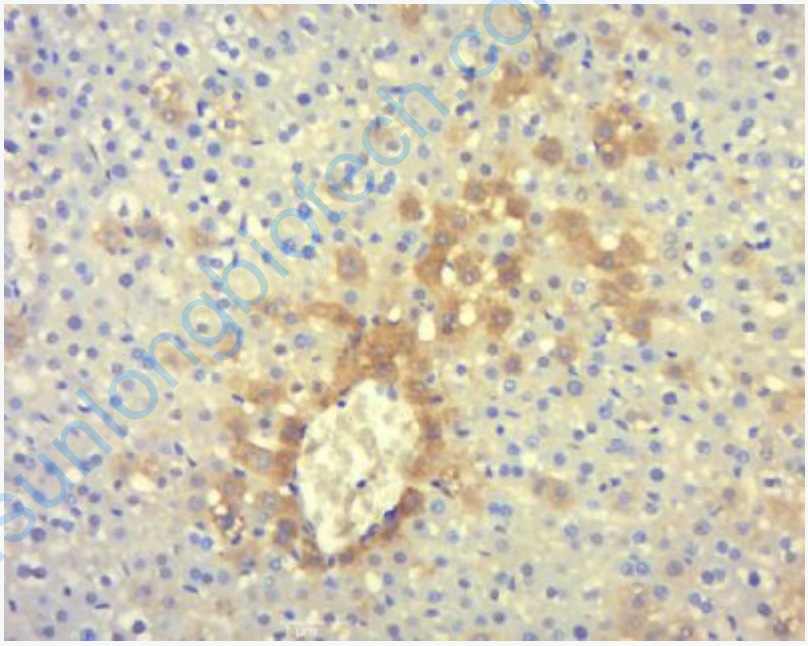
Paraformaldehyde-fixed, paraffin embedded (mouse brain tissue); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (M3K11) Polyclonal Antibody, Unconjugated (SL3280R) at 1:400 overnight at 4°C, followed by a conjugated secondary (sp-0023) for 20 minutes and DAB staining.



Paraformaldehyde-fixed, paraffin embedded (rat liver); 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 30min; Antibody incubation with (Phospho-MLK3(Thr277 + Ser281)) Polyclonal Antibody, Unconjugated (SL3280R) at 1:400 overnight at 4°C, followed by a conjugated secondary (sp-0023) for 20 minutes and DAB staining.

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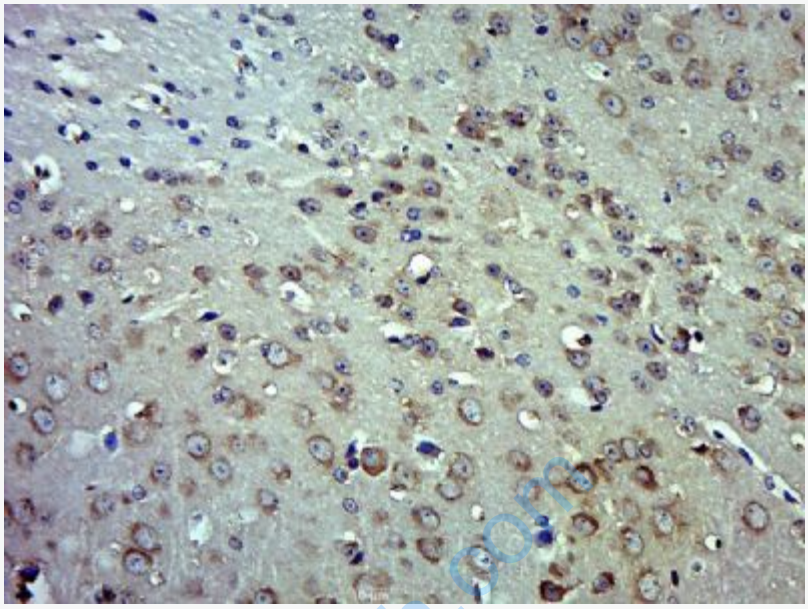

Paraformaldehyde-fixed, paraffin embedded (Mouse brain); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (Phospho-MLK3(Thr277 + Ser281)) Polyclonal Antibody, Unconjugated (SL3280R) at 1:500 overnight at 4°C, followed by a conjugated secondary (sp-0023) for 20 minutes and DAB staining.

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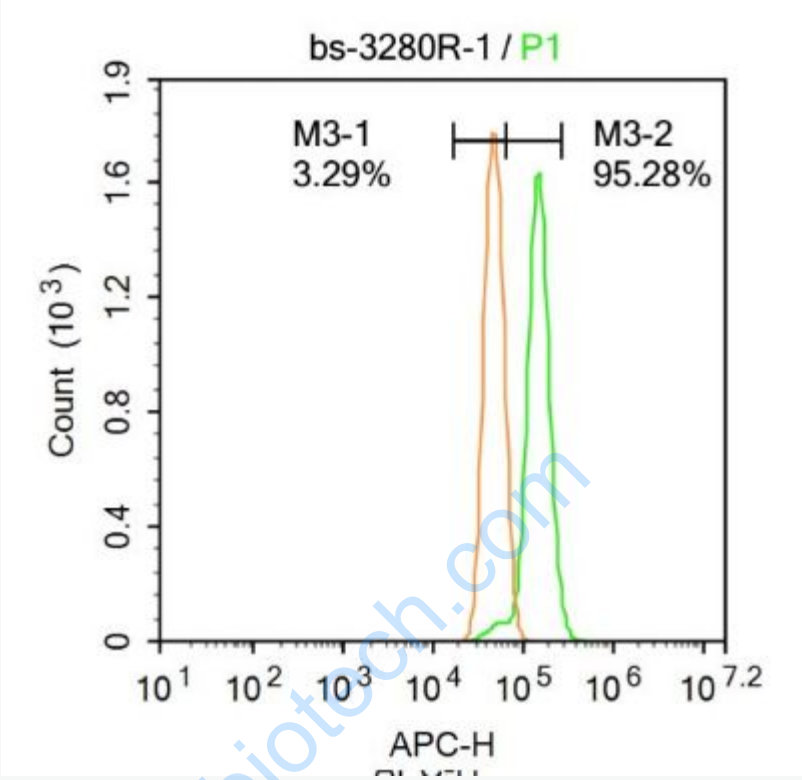

Blank control (Black line): A431 (Black).

Primary Antibody (green line): Rabbit Anti-MLK3 antibody (SL3280R)

Dilution: 1μg /10^6 cells;

Isotype Control Antibody (orange line): Rabbit IgG .

Secondary Antibody (white blue line): Goat anti-rabbit IgG-AF647

Dilution: 1μg /test.

Protocol

The cells were fixed with 4% PFA (10min at room temperature)and then permeabilized with 20% PBST for 20 min at room temperature. The cells were then incubated in 5%BSA to block non-specific protein-protein interactions for 30 min at -20℃ .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

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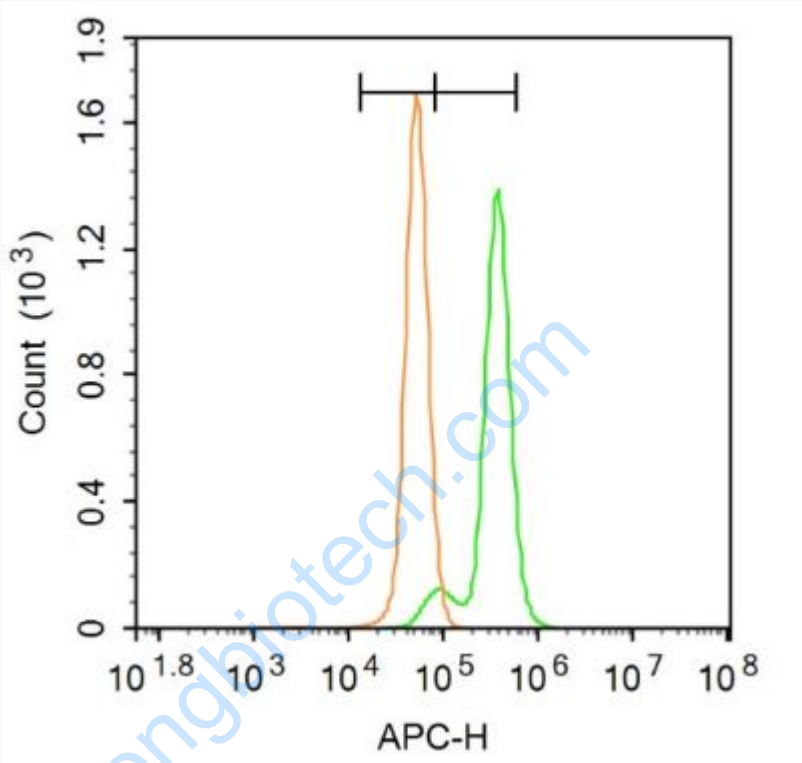
events was performed.



Blank control: A431.

Primary Antibody (green line): Rabbit Anti-MLK3(Thr277 + Ser281) antibody (SL3280R)

Dilution: 3µg /10^6 cells;

Isotype Control Antibody (orange line): Rabbit IgG .

Secondary Antibody: Goat anti-rabbit IgG-AF647

Dilution: 3µg /test.

Protocol

The cells were fixed with 4% PFA (10min at room temperature)and then permeabilized with 20% PBST for 20 min at room temperature. The cells were then

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	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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