SunLong Biotech Co.,LTD
Tel: 0086-571-56623320 Fax:0086-571-56623318
E-mail:sales@sunlongbiotech.com
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[Primary Antibody]

Rabbit Anti-SIK1 antibody

Catalog Number: SL6252R

FOR RESEARCH USE ONLY

[DATASHEET]

Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Target:	SIK1
Immunogen:	KLH conjugated synthetic peptide derived from human Snf1lk: 51-150/783
Purification:	affinity purified by Protein A
Concentration:	1mg/ml
Storage:	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol. Shipped at 4℃. Store at -20 °C for one year. Avoid repeated freeze/thaw cycles.
Applications:	IHC-P=1:400-800 IHC-F=1:400-800 IF=1:100-500 ELISA=1:5000-10000（Paraffin sections need antigen repair） not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Reactivity:	Human,Mouse,Rat(predicted:Dog,Cow,Horse,Sheep)
Predicted MW.:	85kDa
Subcellular Location:	The nucleus cytoplasmic
Background:	Transient role during the earliest stages of myocardial cell differentiation and/or primitive chamber formation and may also be important for the earliest stages of skeletal muscle growth and/or differentiation. Potential role in G2/M cell cycle regulation. Inhibits CREB activity by phosphorylating and repressing the CREB-specific coactivators, CRTC1-3. **Function:** Serine/threonine-protein kinase involved in variousprocesses such as cell cycle regulation, gluconeogenesis andlipogenesis regulation, muscle growth and differentiation and tumorsuppression. Phosphorylates HDAC4, HDAC5, PPME1, SREBF1,TORC1/CRTC1 and TORC2/CRTC2. Acts as a tumor suppressor and plays akey role in p53/TP53-dependent anoikis, a type of apoptosistriggered by cell detachment: required for phosphorylation ofp53/TP53 in response to loss of adhesion and is able to suppressmetastasis.

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	Part of a sodium-sensing signaling network, probably bymediating phosphorylation of PPME1: following increases inintracellular sodium, SIK1 is activated by CaMK1 and phosphorylatesPPME1 subunit of protein phosphatase 2A (PP2A), leading todephosphorylation of sodium/potassium-transporting ATPase ATP1A1and subsequent increase activity of ATP1A1. Acts as a regulator ofmuscle cells by phosphorylating and inhibiting class II histonedeacetylases HDAC4 and HDAC5, leading to promote expression of MEF2target genes in myocytes. Also required during cardiomyogenesis byregulating the exit of cardiomyoblasts from the cell cycle viadown-regulation of CDKN1C/p57Kip2. Acts as a regulator of hepaticgluconeogenesis by phosphorylating and repressing the CREB-specificcoactivators TORC1/CRTC1 and TORC2/CRTC2, leading to inhibit CREBactivity. Also regulates hepatic lipogenesis by phosphorylating andinhibiting SREBF1. **Subunit:** Interacts with ATP1A1 (By similarity). Interacts (when phosphorylated on Thr-182 and Ser-186) with YWHAZ. **Subcellular Location:** Cytoplasm. Nucleus. **Post-translational modifications:** Phosphorylated at Thr-182 by STK11/LKB1 in complex withSTE20-related adapter-alpha (STRADA) pseudo kinase and CAB39,leading to its activation. Phosphorylation at Thr-182 promotesautophosphorylation at Ser-186, which is required for sustainedactivity. Autophosphorylation at Ser-186 is maintained bysequential phosphorylation at Thr-182 by GSK3-beta. GSK3-betacannot initiate phosphorylation at Thr-182, it can only maintainit. Phosphorylation at Ser-575 by PKA promotes translocation to thecytoplasm. Phosphorylation at Thr-322 by CaMK1 followingintracellular sodium concentration leads to activation.Phosphorylated upon DNA damage, probably by ATM or ATR. DISEASE: Note=Defects in SIK1 may be associated with some cancers,such as breast cancers. Loss of SIK1 correlates with poor patientoutcome in breast cancers (PubMed:19622832). **Similarity:** Belongs to the protein kinase superfamily. CAMK Ser/Thr protein kinase family. AMPK subfamily. Contains 1 protein kinase domain. Contains 1 UBA domain. **Database links:** **Entrez Gene:** 150094 Human **Entrez Gene:** 17691 Mouse **Entrez Gene:** 59329 Rat Omim: 605705 Human **SwissProt:** P57059 Human

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	SwissProt: Q60670 Mouse **SwissProt:** Q9R1U5 Rat **Unigene:** 282113 Human **Unigene:** 700423 Human **Unigene:** 290941 Mouse **Unigene:** 42905 Rat

[VALIDATION IMAGES]

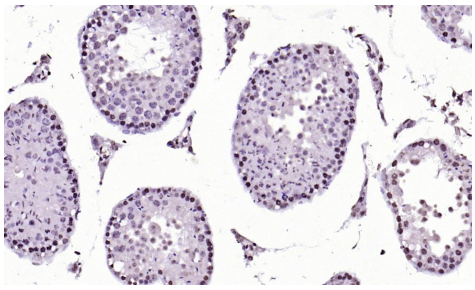


Figure 1. Paraformaldehyde-fixed, paraffin embedded (mouse testis); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (SIK1) Polyclonal Antibody, Unconjugated (SL6252R) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining

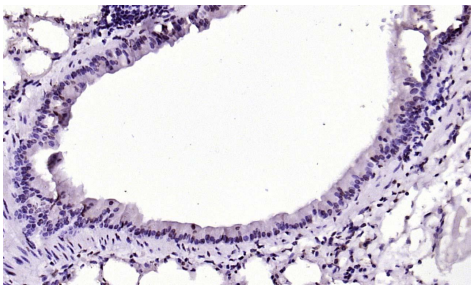


Figure 2. Paraformaldehyde-fixed, paraffin embedded (mouse lung); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (SIK1) Polyclonal Antibody, Unconjugated (SL6252R) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining

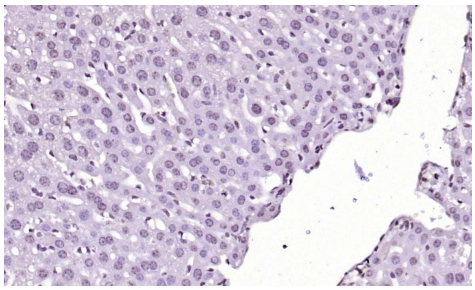


Figure 3. Paraformaldehyde-fixed, paraffin embedded (mouse liver); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (SIK1) Polyclonal Antibody, Unconjugated (SL6252R) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining

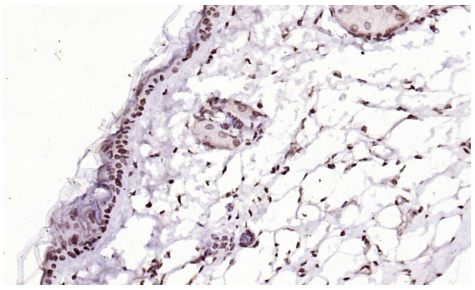


Figure 4. Paraformaldehyde-fixed, paraffin embedded (mouse skin); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (SIK1) Polyclonal Antibody, Unconjugated (SL6252R) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining

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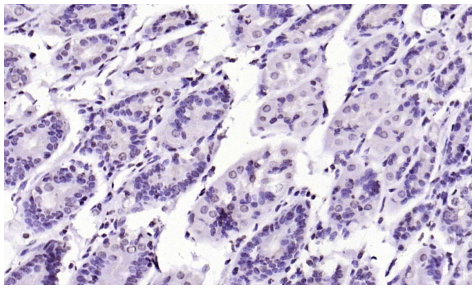


Figure 5. Paraformaldehyde-fixed, paraffin embedded (mouse stomach); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (SIK1) Polyclonal Antibody, Unconjugated (SL6252R) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining

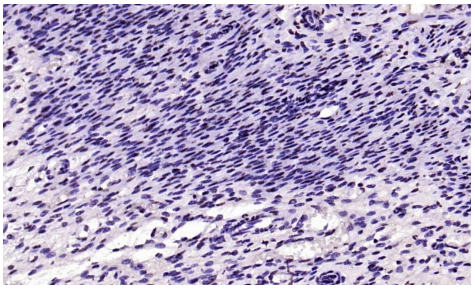


Figure 6. Paraformaldehyde-fixed, paraffin embedded (mouse uterus); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (SIK1) Polyclonal Antibody, Unconjugated (SL6252R) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining

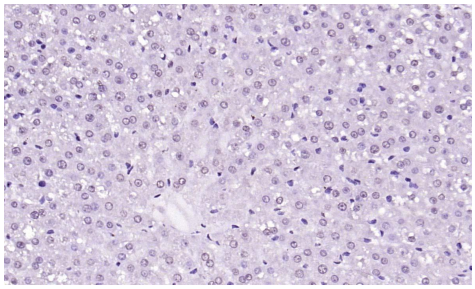


Figure 7. Paraformaldehyde-fixed, paraffin embedded (rat liver); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (SIK1) Polyclonal Antibody, Unconjugated (SL6252R) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining

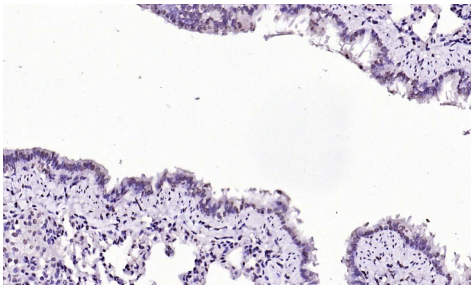


Figure 8. Paraformaldehyde-fixed, paraffin embedded (rat lung); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (SIK1) Polyclonal Antibody, Unconjugated (SL6252R) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining

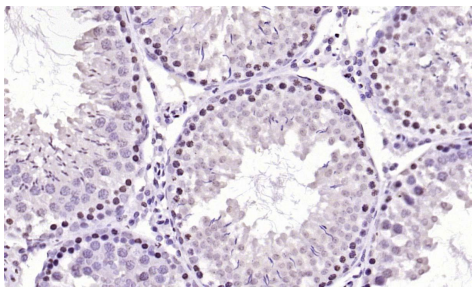


Figure 9. Paraformaldehyde-fixed, paraffin embedded (rat testis); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (SIK1) Polyclonal Antibody, Unconjugated (SL6252R) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining

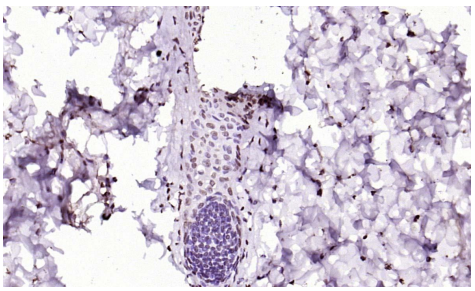


Figure 10. Paraformaldehyde-fixed, paraffin embedded (rat skin); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (SIK1) Polyclonal Antibody, Unconjugated (SL6252R) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining

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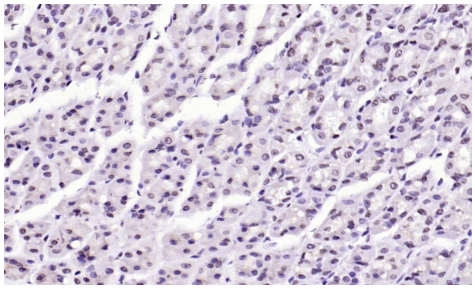


Figure 11. Paraformaldehyde-fixed, paraffin embedded (rat stomach); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (SIK1) Polyclonal Antibody, Unconjugated (SL6252R) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining

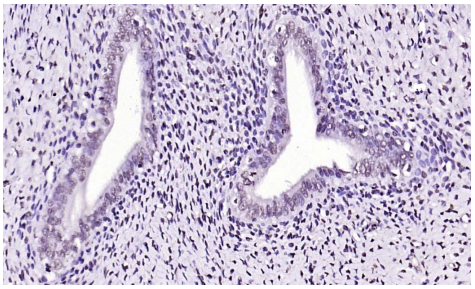


Figure 12. Paraformaldehyde-fixed, paraffin embedded (rat uterus); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (SIK1) Polyclonal Antibody, Unconjugated (SL6252R) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining

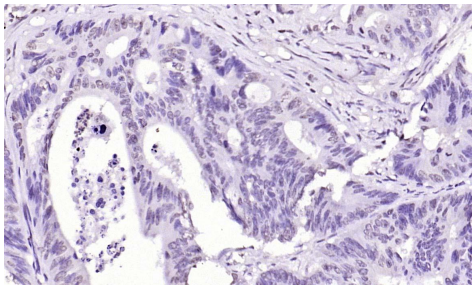


Figure 13. Paraformaldehyde-fixed, paraffin embedded (human colon carcinoma); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (SIK1) Polyclonal Antibody, Unconjugated (SL6252R) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining

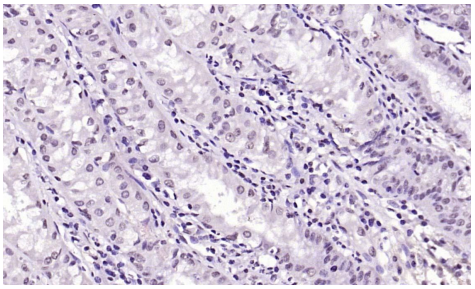


Figure 14. Paraformaldehyde-fixed, paraffin embedded (human gastric); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (SIK1) Polyclonal Antibody, Unconjugated (SL6252R) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining

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