SunLong Biotech Co.,LTD
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[Primary Antibody]

Rabbit Anti-KLF4 antibody

Catalog Number: SL1064R

FOR RESEARCH USE ONLY

[DATASHEET]

Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Target:	KLF4
Immunogen:	KLH conjugated synthetic peptide derived from human KLF4: 415-513/513
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:	WB=1:500-2000 IHC-P=1:50-200 IHC-F=1:50-200 ICC/IF=1:100-500 IF=1:50-200 Flow-Cyt=1ug/Test （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 MW.:	56kDa
Subcellular Location:	The nucleus
Background:	KLF4 is a transcription factor that works with Sp1 to activate the Laminin gamma1 chain gene. It binds the CACCC core sequence. KLF4 may be involved in the differentiation of epithelial cells and may also function in the development of the skeleton and kidney. KLF4 also has roles as both an oncogene and a tumor suppressor. **Function:** Transcription factor; can act both as activator and as repressor. Binds the 5'-CACCC-3' core sequence. Binds to the promoter region of its own gene and can activate its own transcription. Regulates the expression of key transcription factors during embryonic development. Plays an important role in maintaining embryonic stem cells, and in preventing their differentiation.

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	Required for establishing the barrier function of the skin and for postnatal maturation and maintenance of the ocular surface. Involved in the differentiation of epithelial cells and may also function in skeletal and kidney development. Contributes to the down-regulation of p53/TP53 transcription. **Subunit:** Interacts with POU5F1/OCT4 and SOX2. Interacts with MUC1 (via the C-terminal domain). **Subcellular Location:** Nucleus. **Post-translational modifications:** Ubiquitinated. Polyubiquitination involves WWP1 and leads to proteasomal degradation of this protein. **Similarity:** Belongs to the krueppel C2H2-type zinc-finger protein family. Contains 3 C2H2-type zinc fingers. **Database links:** **Entrez Gene:** 9314 Human **Entrez Gene:** 16600 Mouse Omim: 602253 Human **SwissProt:** O43474 Human **SwissProt:** Q60793 Mouse **Unigene:** 376206 Human **Unigene:** 4325 Mouse Klf4 (formerly GKLF) regulates cell proliferation and differentiation in vitro. Some scholars believe that KLF4 may be involved in the occurrence and development of digestive system Tumour, and is mostly expressed in the colon. Also known as: epithelial zinc finger transcription factor (epithelial Zinc finger protein) Surface skin layer zinc finger protein.

[VALIDATION IMAGES]

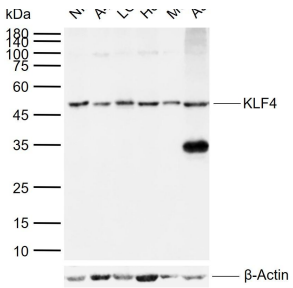


Figure 1. Sample: Lane 1: Mouse NIH/3T3 cell lysates Lane 2: Human A431 cell lysates Lane 3: Human LOVO cell lysates Lane 4: Human HeLa cell lysates Lane 5: Human MCF-7 cell lysates Lane 6: Human A549 cell lysates Primary: Anti-KLF4 (SL1064R) at 1/1000 dilution Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution Predicted band size: 56 kDa Observed band size: 50 kDa

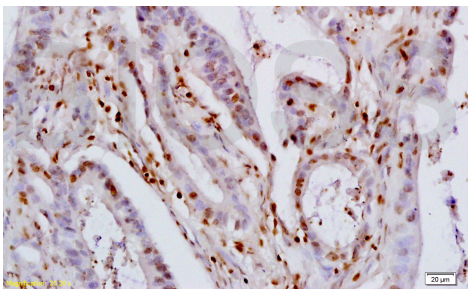


Figure 2. Tissue/cell: human colon carcinoma; 4% Paraformaldehyde-fixed and paraffin-embedded; Antigen retrieval: citrate buffer (0.01M, pH 6.0), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37°C for 20 min; Incubation: Anti-KLF4 Polyclonal Antibody, Unconjugated(SL1064R) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining

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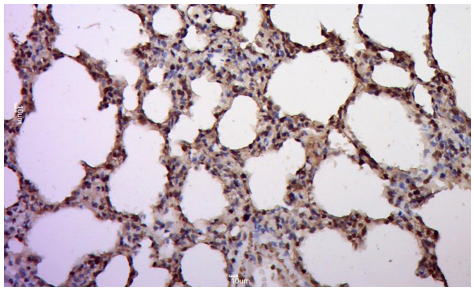


Figure 3. Paraformaldehyde-fixed, paraffin embedded (Rat lung); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (KLF4) Polyclonal Antibody, Unconjugated (SL1064R) at 1:400 overnight at 4°C, followed by a conjugated secondary (sp-0023) for 20 minutes and DAB staining

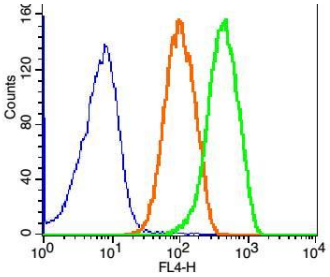


Figure 4. Blank control: MCF7(blue). Primary Antibody: Rabbit Anti-KLF4 BF647 Conjugated antibody (SL1064R-BF647), Dilution: 1µg in 100 µL 1X PBS containing 0.5% BSA; Isotype Control Antibody: Rabbit IgG/BF647(orange),used under the same conditions. Protocol The cells were fixed with 2% paraformaldehyde (10 min) and then permeabilized with ice-cold 90% methanol for 30 min on ice. The cells were washed twice with 1 X PBS. The cells were incubated in 1 X PBS containing 0.5% BSA + 1 0% goat serum (15 min) to block non-specific protein-protein interactions followed by the incubated with antibody (SL1064R-BF647, 1µg /1x10^6 cells) for 30 min on ice. Acquisition of 20,000 events was performed

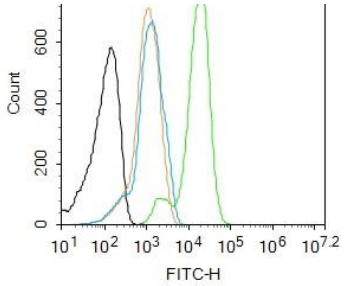


Figure 5. Blank control: K562. Primary Antibody (green line): Rabbit Anti-KLF4 antibody (SL1064R) Dilution: 1µg /10^6 cells; Isotype Control Antibody (orange line): Rabbit IgG. Secondary Antibody: Goat anti-rabbit IgG-FITC Dilution: 1µg /test. Protocol The cells were fixed with 4% PFA (10min at room temperature)and then permeabilized with 90% ice-cold methanol for 20 min at -20°C.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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