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KLF4 Antibody
Purified Mouse Monoclonal Antibody (Mab)
Catalog # AM2725A

Specification

KLF4 Antibody - Product Information

Application	**IF, FC, WB,E**
Primary Accession	O43474
Other Accession	Q60793
Reactivity	**Human, Mouse**
Host	**Mouse**
Clonality	**Monoclonal**
Isotype	**IgG2b,κ**

KLF4 Antibody - Additional Information

Gene ID 9314

Other Names
Krueppel-like factor 4, Epithelial zinc finger protein EZF, Gut-enriched krueppel-like factor, KLF4, EZF, GKLF

Target/Specificity
KLF4 recombinant protein is used to produce this monoclonal antibody.

Dilution
IF~~1:10~50
FC~~1:10~50
WB~~1:4000
E~~Use at an assay dependent concentration.

Format
Purified monoclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein G column, followed by dialysis against PBS.

Storage
Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
KLF4 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

KLF4 Antibody - Protein Information

Name KLF4 (HGNC:6348)

Synonyms EZF, GKLF

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. 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.

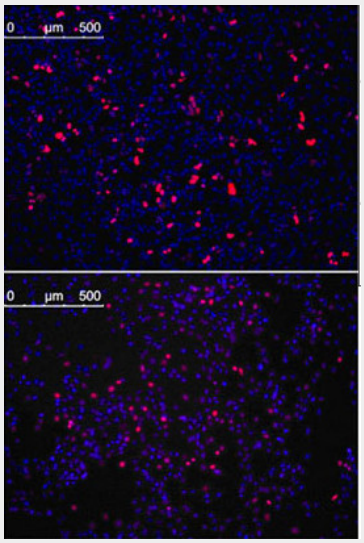
Cellular Location
Nucleus {ECO:0000250|UniProtKB:Q60793}. Cytoplasm {ECO:0000250|UniProtKB:Q60793}

KLF4 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

KLF4 Antibody - Images



Immunoflurescence analysis of KLF4 antibody , AM2725a (5 µg/ml). Hela cells transfected with pMX constructs of human KLF4 (top) and NIH3T3 cells transfected with pMX constructs of mouse KLF4 (bottom) were analyzed at approximately 62 hours after transfection.

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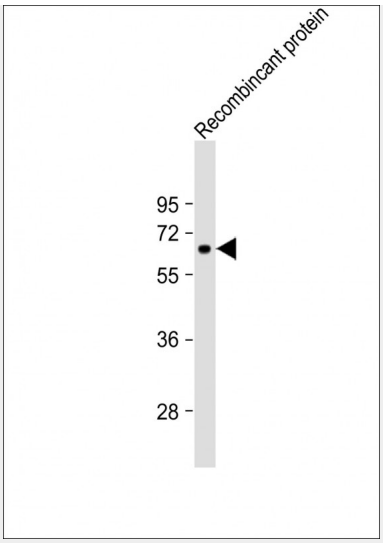
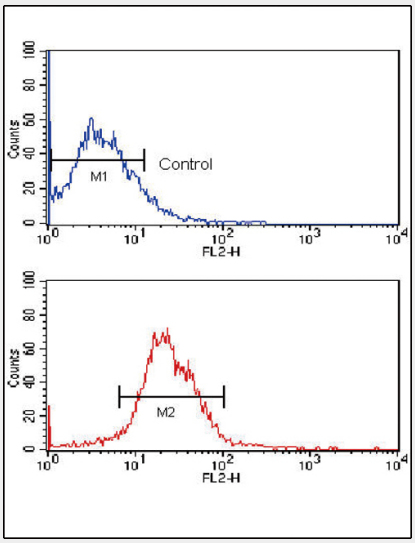


Anti-KLF4 Antibody at 1:4000 dilution + Recombincant protein lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-mouse IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 60 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



Flow cytometric analysis of MCF-7 cells using KLF4 Monoclonal Antibody (bottom histogram) compared to a negative control (top histogram). PE-conjugated goat-anti-mouse secondary antibodies were used for the analysis.

KLF4 Antibody - References

MCC-555-induced NAG-1 expression is mediated in part by KLF4. Cekanova M, et al. Eur J Pharmacol, 2010 Jul 10. PMID 20385121. Kruppel-like factor 4 inhibits epithelial-to-mesenchymal transition through regulation of E-cadherin gene expression. Yori JL, et al. J Biol Chem, 2010 May 28. PMID 20356845. MicroRNA-10b promotes migration and invasion through KLF4 in human esophageal cancer cell lines. Tian Y, et al. J Biol Chem, 2010 Mar 12. PMID 20075075. Genetic and epigenetic inactivation of Kruppel-like factor 4 in medulloblastoma. Nakahara Y, et al. Neoplasia, 2010 Jan. PMID 20072650. Kruppel-like factor 4 (Klf4) prevents embryonic stem (ES) cell differentiation by regulating Nanog gene expression. Zhang P, et al. J Biol Chem, 2010 Mar 19. PMID 20071344.

KLF4 Antibody - Citations

- Metastatic site influences driver gene function in pancreatic cancer
- Helicobacter pylori CagA promotes the malignant transformation of gastric mucosal

epithelial cells through the dysregulation of the miR-155/KLF4 signaling pathway.
- Systematic Generation of Patient-Derived Tumor Models in Pancreatic Cancer.
- Succession of transiently active tumor-initiating cell clones in human pancreatic cancer xenografts.
- KLF4Î± up-regulation promotes cell cycle progression and reduces survival time of patients with pancreatic cancer.