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KLF4 Antibody (N-term C74)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP2725a

Product Information

Application	IF, IHC-P, WB, E
Primary Accession	O43474
Other Accession	NP_004226
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	54671
Antigen Region	69-101

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	This KLF4 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 69-101 amino acids of human KLF4.
Dilution	IF~~1:10~50 IHC-P~~1:100~500 WB~~1:1000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
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 (N-term C74) is for research use only and not for use in diagnostic or therapeutic procedures.

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}

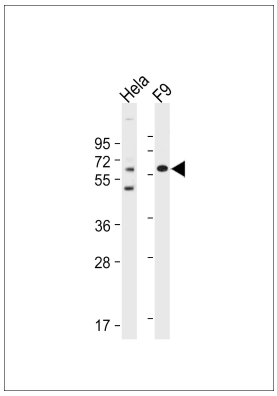
Background

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.

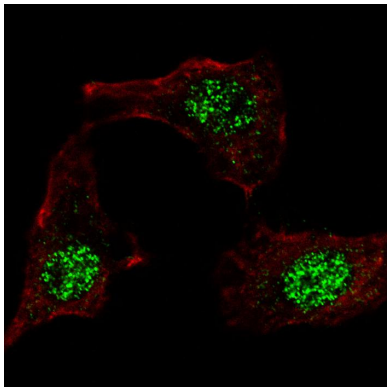
References

Alder,J.K., J. Immunol. 180 (8), 5645-5652 (2008)
Natesampillai,S., Am. J. Physiol. Endocrinol. Metab. 294 (2), E385-E391 (2008)
Evans,P.M., J. Biol. Chem. 282 (47), 33994-34002 (2007)
Behr,R., Mol. Hum. Reprod. 13 (11), 815-820 (2007)

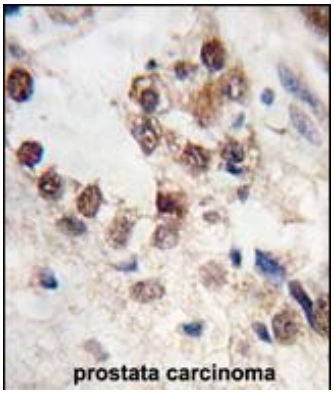
Images



All lanes : Anti-KLF4 Antibody (N-term C74) at 1:2000 dilution Lane 1: Hela whole cell lysate Lane 2: F9 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 55 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



Fluorescent confocal image of HeLa cells stained with AP2725a KLF4 (N-term C74) antibody. HeLa cells were fixed with 4% PFA (20 min), permeabilized with Triton X-100 (0.2%, 30 min), then incubated with AP2725a KLF4 (N-term C74) primary antibody (1:100, 2 h at room temperature). For secondary antibody, Alexa Fluor® 488 conjugated donkey anti-rabbit antibody (green) was used (1:1000, 1h). Cytoplasmic actin was counterstained with Alexa Fluor® 555 (red) conjugated Phalloidin (5.25 µM, 25 min). KLF4 immunoreactivity is localized to the nuclei in HeLa cells.



Formalin-fixed and paraffin-embedded human prostata carcinoma tissue reacted with KLF4 antibody (N-term C74) (Cat.#AP2725a), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.

Citations

- Early progenitor cell marker expression distinguishes type II from type I focal cortical dysplasias.