10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

KLF4 Antibody

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP2725F

Product Information

Application	WB, IF, E
Primary Accession	O43474
Other Accession	Q60793, Q9ET58, Q60843, Q9Y5W3
Reactivity	Human
Predicted	Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB18934
Calculated MW	54671
Antigen Region	481-504

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 481-504 amino acids from human KLF4.
Dilution	WB~~1:1000 IF~~1:10~50 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 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}

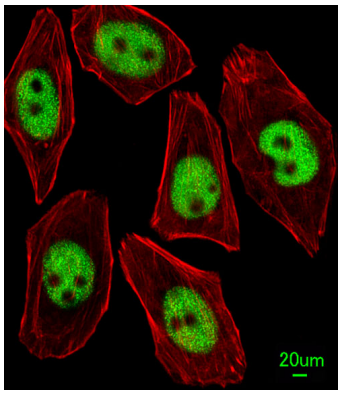
Background

Kr

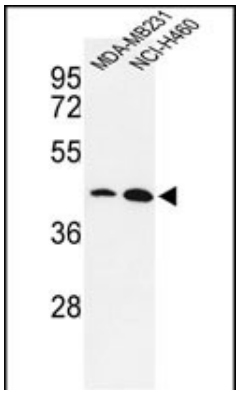
References

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

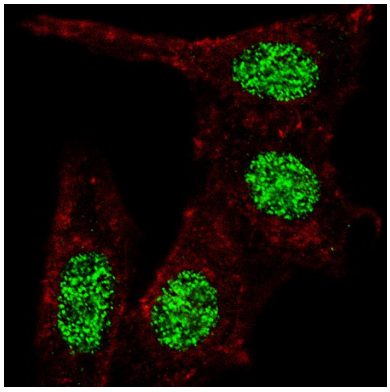


Immunofluorescent analysis of U251 cells, using KLF4 Antibody (Cat. #AP2725f). AP2725f was diluted at 1:25 dilution. Alexa Fluor 488-conjugated goat anti-rabbit lgG at 1:400 dilution was used as the secondary antibody (green). Cytoplasmic actin was counterstained with Dylight Fluor® 554 (red) conjugated Phalloidin (red).

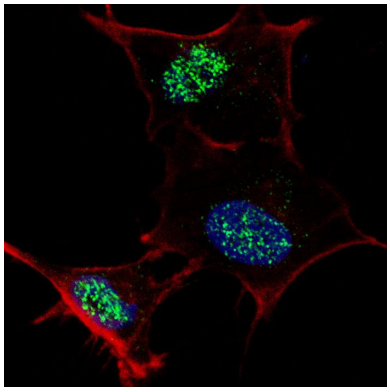


Western blot analysis of KLF4-S457 (Cat.# AP2725f) in MDA-MB231, NCI-H460 cell line lysates (35ug/lane). KLF4 (arrow) was detected using the purified Pab.

Fluorescent confocal image of HeLa cells stained with AP2725f KLF4 (S457) antibody. HeLa cells were fixed with 4% PFA (20 min), permeabilized with Triton X-100 (0.2%, 30 min), then incubated with AP2725f KLF4 (S457) 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). Note the highly specific localization of the phosphorylated KLF4 immunoreactivity to the nuclei but not the cytoplasm.



Fluorescent confocal image of SY5Y cells stained with AP2725f KLF4 (S457) antibody. SY5Y cells were fixed with 4% PFA (20 min), permeabilized with Triton X-100 (0.2%, 30 min), then incubated with AP2725f KLF4 (S457) 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). Note the highly specific localization of the phosphorylated KLF4 immunoreactivity to the nuclei.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.