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

KLF4 Antibody (N-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP2725d

Product Information

Application	WB, E
Primary Accession	O43474
Other Accession	NP_004226
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	54671
Antigen Region	20-53

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 20-53 amino acids from the N-terminal region of human KLF4.
Dilution	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 prepared by Saturated Ammonium Sulfate (SAS) precipitation 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 (N-term) 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}

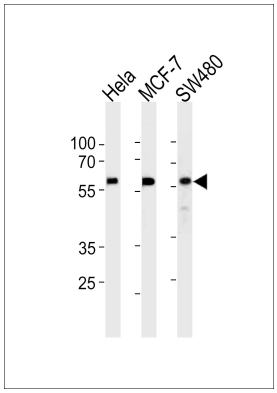
Background

Kruppel-like factor 4 (KLF4) is a transcription factor involved in both proliferation and differentiation in the colon. It is down-regulated in both mouse and human colonic adenomas and has been implicated as a tumor suppressor in the gut, whereas in breast cancer, KLF4 is an oncogene. KLF4 is also involved in reprogramming differentiated cells into pluripotent stem cells. KLF4 can act as a transcriptional activator or repressor, but the underlying mechanisms are poorly understood.

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



KLF4 Antibody (N-term) (Cat. #AP2725d) western blot analysis in Hela,MCF-7,SW480 cell line lysates (35ug/lane).This demonstrates the KLF4 antibody detected the KLF4 protein (arrow).

Citations

- MicroRNA-145 protects follicular granulosa cells against oxidative stress-induced apoptosis by targeting Krüppel-like factor 4.
- MiR-32 promotes gastric carcinoma tumorigenesis by targeting Kruppel-like factor 4.
- Pluripotent stem cells derived from mouse and human white mature adipocytes.
- Regulation of the human HBA genes by KLF4 in erythroid cell lines.