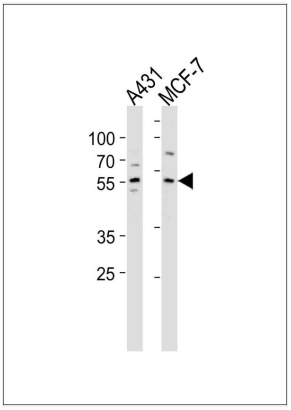
# KLF4 Antibody – Rabbit Polyclonal

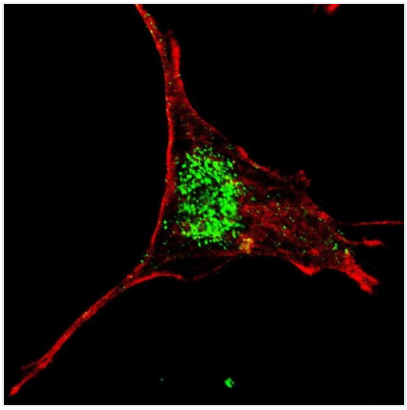
## PRODUCT OVERVIEW

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| **Product Name** | KLF4, Polyclonal Antibody |
| **Full Product Name** | KLF4, CT (KLF4, EZF, GKLF, Krueppel-like factor 4, Epithelial zinc finger protein EZF, Gut-enriched krueppel-like factor) (PE) |
| **Product Gene Name** | anti-KLF4 antibody |
| **Product Synonym Names** | KLF4; EZF; GKLF; Krueppel-like factor 4; Epithelial zinc finger protein EZF; Gut-enriched krueppel-like factor |
| **Clonality** | Polyclonal |
| **Isotype** | IgG |
| **Host** | Rabbit |
| **Species Reactivity** | Human |
| **Form/Format** | Supplied as a liquid in PBS, pH 7.2. No preservative added. Labeled with R-Phycoerythrin (PE). |
| **Purity/Purification** | Purified by saturated ammonium sulfate precipitation followed by dialysis against PBS. |
| **Preparation and Storage** | Store product at 4 degree C in the dark. DO NOT FREEZE! Stable at 4 degree C for 12 months after receipt as an undiluted liquid. Dilute required amount only prior to immediate use. Further dilutions can be made in assay buffer. Caution: PE conjugates are sensitive to light. For maximum recovery of product, centrifuge the original vial prior to removing the cap. |
| **Molecular Weight** | 58.1 kDa (545aa) |
| **OMIM** | 602253 |
| **3D Structure** | ModBase 3D Structure for O43474 |
| **Immunogen** | KLF4 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 357-386 amino acids from the C-terminal region of human KLF4. |
| **Conjugate** | PE |
| **Note** | Preservative Free |
| **Product Categories/Family for anti-KLF4 antibody** | Antibodies; Transcription Factors; Zinc (Ring) Finger |
| **Applications Tested/Suitable for anti-KLF4 antibody** | Flow Cytometry (FC/FACS), ELISA (EIA), Western Blot (WB) |
| **Application Notes for anti-KLF4 antibody** | FC/FACS: 1:10-50<br>ELISA: 1:1,000<br>WB: 1:50-100<br>Applications are based on unconjugated antibody. |
| **Related Product Information for anti-KLF4 antibody** | KLF4 is a transcription factor which acts as both an activator and repressor. Binds the CACCC core sequence. Binds to multiple sites in the 5'-flanking region of its own gene and can activate its own transcription. 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. |
| **Product References and Citations for anti-KLF4 antibody** | Guan, H., et al. Blood 116(9):1469-1478(2010). Wong, C.W., et al. Stem Cells 28(9):1510-1517(2010). Ohnesorge, N., et al. J. Biol. Chem. 285(34):26199-26210(2010). Cekanova, M., et al. Eur. J. Pharmacol. 637 (1-3), 30-37 (2010): Yori, J.L., et al. J. Biol. Chem. 285(22):16854-16863(2010). |

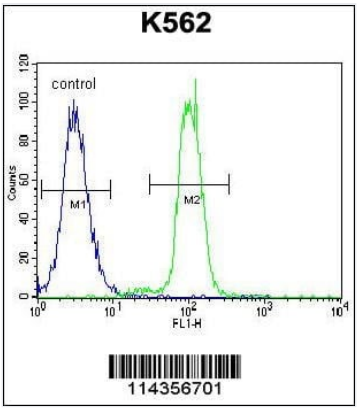
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| **Other Notes** | Small volumes of anti-KLF4 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply. |
| **Searchable Terms for KLF4 purchase** | MBS6313995 is an antibody targeting KLF4. Also known as KLF4, CT (KLF4, EZF, GKLF, Krueppel-like factor 4, Epithelial zinc finger protein EZF, Gut-enriched krueppel-like factor) (PE). Reactive in Human. Host: Rabbit. |




**Western Blot (WB) of anti-KLF4 antibody**
KLF4 Antibody (C-term) western blot analysis in A431,MCF-7 cell line lysates (35ug/lane).This demonstrates the KLF4 antibody detected the KLF4 protein (arrow).



**Immunofluorescence (IF) of anti-KLF4 antibody**
Fluorescent confocal image of SY5Y cells stained with AP11958b KLF4 (C-term) antibody. SY5Y cells were fixed with 4% PFA (20 min), permeabilized with Triton X-100 (0.2%, 30 min), then incubated with AP11958b KLF4 (C-term) primary antibody (1:200, 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 uM, 25 min). KLF4 immunoreactivity is localized very specifically to the nuclei of the SY5Y cells.




**Flow Cytometry (FC/FACS) of anti-KLF4 antibody**
KLF4 Antibody (C-term) flow cytometric analysis of K562 cells (right histogram) compared to a negative control cell (left histogram).FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

## ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for KLF4. It may not necessarily be applicable to this product.

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| **NCBI GI #** | 194248077 |
| **NCBI GeneID** | 9314 |
| **NCBI Accession #** | NP_004226 |
| **UniProt Primary Accession #** | O43474 |
| **UniProt Secondary Accession #** | P78338; Q5T3J8; Q5T3J9; Q8N717; Q9UNP3; B2R8S4; B3KT79; L0R3I6; L0R4N5 |
| **UniProt Related Accession #** | O43474 |
| **GenBank Nucleotide #** | NM_004235.5 |

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| **NCBI Official Full Name** | Krueppel-like factor 4 isoform 2 |
| **NCBI Official Synonym Full Names** | Kruppel like factor 4 |
| **NCBI Official Symbol** | KLF4 |
| **NCBI Official Synonym Symbols** | EZF; GKLF |
| **UniProt Protein Name** | Krueppel-like factor 4 |
| **UniProt Synonym Protein Names** | Epithelial zinc finger protein EZF; Gut-enriched krueppel-like factor |
| **Protein Family** | Krueppel-like factor |
| **UniProt Gene Name** | KLF4 |
| **UniProt Synonym Gene Names** | EZF; GKLF |
| **UniProt Entry Name** | KLF4_HUMAN |
| **NCBI Protein Information** | Krueppel-like factor 4 |
| **NCBI Summary for KLF4** | This gene encodes a protein that belongs to the Kruppel family of transcription factors. The encoded zinc finger protein is required for normal development of the barrier function of skin. The encoded protein is thought to control the G1-to-S transition of the cell cycle following DNA damage by mediating the tumor suppressor gene p53. Mice lacking this gene have a normal appearance but lose weight rapidly, and die shortly after birth due to fluid evaporation resulting from compromised epidermal barrier function. Alternative splicing results in multiple transcript variants encoding different isoforms. [provided by RefSeq, Sep 2015] |
| **Research Articles on KLF4** | **1.** Data suggest that KLF4 could promote cell senescence through a complex network: miR-203, survivin, and p21, which were all regulated by overexpression of KLF4 and contributed to cell senescence. |
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