

KCMF1 (E-12): sc-161087

BACKGROUND

Zinc-finger proteins contain DNA-binding domains and have a wide variety of functions, most of which encompass some form of transcriptional activation or repression. KCMF1 (potassium channel modulatory factor 1), also known as FGF-induced ubiquitin-protein ligase in gastric cancers (FIGC), ZZ-type zinc finger-containing protein 1 (ZZZ1), differentially expressed in branching tubulogenesis 91 (DEBT91) or PCMF, is a 381 amino acid member of the KCMF1 family and consists of one C₂H₂-type zinc finger and one ZZ-type zinc finger. KCMF1 is expressed in spleen, small intestine, ovary, peripheral blood, lung, kidney and pancreas with low expression in the thymus, prostate, testis, colon, heart, brain, placenta and liver. KCMF1 has intrinsic E3 ubiquitin ligase activity and promotes ubiquitination. KCMF1 is upregulated by basic fibroblast growth factor (also designated FGF-2) in gastric cancer cells and is considered a novel gene important in the regulation of epithelial morphogenesis.

REFERENCES

1. South, T.L. and Summers, M.F. 1990. Zinc fingers. *Adv. Inorg. Biochem.* 8: 199-248.
2. Thiesen, H.J. 1990. Multiple genes encoding zinc finger domains are expressed in human T cells. *New Biol.* 2: 363-374.
3. Wolfe, D., et al. 1999. Ubiquitin metabolism affects cellular response to volatile anesthetics in yeast. *Mol. Cell. Biol.* 19: 8254-8262.
4. Li, Z., et al. 2003. Debt91, a putative zinc finger protein differentially expressed during epithelial morphogenesis. *Biochem. Biophys. Res. Commun.* 306: 623-628.
5. Jang, J.H. 2004. FIGC, a novel FGF-induced ubiquitin-protein ligase in gastric cancers. *FEBS Lett.* 578: 21-25.
6. Katoh, M. and Katoh, M. 2006. FGF signaling network in the gastrointestinal tract (review). *Int. J. Oncol.* 29: 163-168.

CHROMOSOMAL LOCATION

Genetic locus: KCMF1 (human) mapping to 2p11.2; Kcmf1 (mouse) mapping to 6 C1.

SOURCE

KCMF1 (E-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of KCMF1 of human origin.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-161087 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS

KCMF1 (E-12) is recommended for detection of KCMF1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

KCMF1 (E-12) is also recommended for detection of KCMF1 in additional species, including equine, bovine and avian.

Suitable for use as control antibody for KCMF1 siRNA (h): sc-94339, KCMF1 siRNA (m): sc-146355, KCMF1 shRNA Plasmid (h): sc-94339-SH, KCMF1 shRNA Plasmid (m): sc-146355-SH, KCMF1 shRNA (h) Lentiviral Particles: sc-94339-V and KCMF1 shRNA (m) Lentiviral Particles: sc-146355-V.

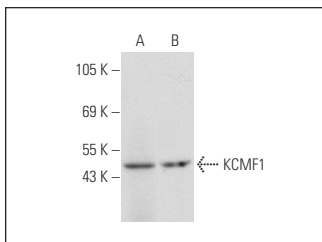
Molecular Weight of KCMF1: 42 kDa.

Positive Controls: SW480 cell lysate: sc-2219 or human PBL whole cell lysate.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



KCMF1 (E-12): sc-161087. Western blot analysis of KCMF1 expression in human PBL (A) and SW480 (B) whole cell lysates.

RESEARCH USE

For research use only, not for use in diagnostic procedures.



Try **KCMF1 (A-3): sc-390051**, our highly recommended monoclonal alternative to KCMF1 (E-12).