

KCP3 (V-15): sc-243140

BACKGROUND

KCP3 (keratinocyte-associated protein 3), also known as KRTPCAP3, is a 240 amino acid multi-pass membrane protein that belongs to the TMEM54 family. Expressed in skin, pancreas and keratinocytes, KCP3 exists as two alternatively spliced isoforms. The gene encoding KCP3 maps to human chromosome 2, the second largest human chromosome, which consists of 237 million bases, encodes over 1,400 genes and makes up approximately 8% of the human genome. A number of genetic diseases are linked to genes on chromosome 2. Harlequin ichthyosis, a rare and morbid skin deformity, is associated with mutations in the ABCA12 gene. The lipid metabolic disorder sitosterolemia is associated with ABCG5 and ABCG8. An extremely rare recessive genetic disorder, Alström syndrome, is due to mutations in the ALMS1 gene. Interestingly, chromosome 2 contains what appears to be a vestigial second centromere and vestigial telomeres, which gives credence to the hypothesis that human chromosome 2 is the result of an ancient fusion of two ancestral chromosomes seen in modern form today in apes.

REFERENCES

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- Zumsteg, U., et al. 2000. Alstrom syndrome: confirmation of linkage to chromosome 2p12-13 and phenotypic heterogeneity in three affected sibs. *J. Med. Genet.* 37: E8.
- Shulenin, S., et al. 2001. An ATP-binding cassette gene (ABCG5) from the ABCG (White) gene subfamily maps to human chromosome 2p21 in the region of the Sitosterolemia locus. *Cytogenet. Cell Genet.* 92: 204-208.
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- Kelsell, D.P., et al. 2005. Mutations in ABCA12 underlie the severe congenital skin disease harlequin ichthyosis. *Am. J. Hum. Genet.* 76: 794-803.
- Horvath, J.E., et al. 2005. Punctuated duplication seeding events during the evolution of human chromosome 2p11. *Genome Res.* 15: 914-927.

CHROMOSOMAL LOCATION

Genetic locus: KRTPCAP3 (human) mapping to 2p23.3; Krtcap3 (mouse) mapping to 5 B1.

SOURCE

KCP3 (V-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of KCP3 of human origin.

STORAGE

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

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-243140 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

KCP3 (V-15) is recommended for detection of KCP3 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); non cross-reactive with KCP2.

KCP3 (V-15) is also recommended for detection of KCP3 in additional species, including equine, canine and bovine.

Suitable for use as control antibody for KCP3 siRNA (h): sc-94638, KCP3 siRNA (m): sc-146378, KCP3 shRNA Plasmid (h): sc-94638-SH, KCP3 shRNA Plasmid (m): sc-146378-SH, KCP3 shRNA (h) Lentiviral Particles: sc-94638-V and KCP3 shRNA (m) Lentiviral Particles: sc-146378-V.

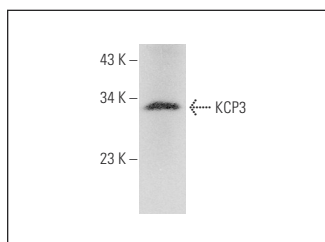
Molecular Weight of KCP3: 26 kDa.

Positive Controls: mouse skin extract: sc-364251.

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



KCP3 (V-15): sc-243140. Western blot analysis of KCP3 expression in mouse skin tissue extract.

RESEARCH USE

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