

KDEL2 (E-17): sc-243149

BACKGROUND

KDEL2 (KDEL motif-containing protein 2) is a 507 amino acid protein that belongs to the KDEL family and contains one filamin repeat. Localizing to the endoplasmic reticulum lumen, KDEL2 exists as three alternatively spliced isoforms. The gene encoding KDEL2 maps to human chromosome 11q22.3 and mouse chromosome 9 A5.3. Human chromosome 11 comprises approximately 4% of human genomic DNA and is considered a gene and disease association dense chromosome. The chromosome 11 encoded *Atm* gene is important for regulation of cell cycle arrest and apoptosis following double strand DNA breaks. *Atm* mutation leads to the disorder known as ataxia-telangiectasia. The blood disorders Sickle cell anemia and thalassemia are caused by HBB gene mutations, while Wilms' tumors, WAGR syndrome and Denys-Drash syndrome are associated with mutations of the WT1 gene. Jervell and Lange-Nielsen syndrome, Jacobsen syndrome, Niemann-Pick disease, hereditary angioedema and Smith-Lemli-Opitz syndrome are also associated with defects in chromosome 11-encoded genes.

REFERENCES

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2. Jira, P.E., Waterham, H.R., Wanders, R.J., Smeitink, J.A., Sengers, R.C. and Wevers, R.A. 2003. Smith-Lemli-Opitz syndrome and the DHCR7 gene. *Ann. Hum. Genet.* 67: 269-280.
3. Schuchman, E.H. 2007. The pathogenesis and treatment of acid sphingomyelinase-deficient Niemann-Pick disease. *J. Inherit. Metab. Dis.* 30: 654-663.
4. Siem, G., Früh, A., Leren, T.P., Heimdal, K., Teig, E. and Harris, S. 2008. Jervell and Lange-Nielsen syndrome in Norwegian children: aspects around cochlear implantation, hearing, and balance. *Ear Hear.* 29: 261-269.

CHROMOSOMAL LOCATION

Genetic locus: KDEL2 (human) mapping to 11q22.3; *Kdelc2* (mouse) mapping to 9 A5.3.

SOURCE

KDEL2 (E-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of KDEL2 of human origin.

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-243149 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

KDEL2 (E-17) is recommended for detection of KDEL2 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).

KDEL2 (E-17) is also recommended for detection of KDEL2 in additional species, including canine, bovine and porcine.

Suitable for use as control antibody for KDEL2 siRNA (h): sc-97012, KDEL2 siRNA (m): sc-146402, KDEL2 shRNA Plasmid (h): sc-97012-SH, KDEL2 shRNA Plasmid (m): sc-146402-SH, KDEL2 shRNA (h) Lentiviral Particles: sc-97012-V and KDEL2 shRNA (m) Lentiviral Particles: sc-146402-V.

Molecular Weight of KDEL2 isoform 1: 59 kDa.

Molecular Weight of KDEL2 isoform 2: 53 kDa.

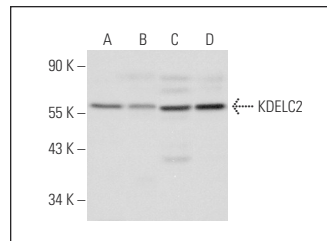
Molecular Weight of KDEL2 isoform 3: 47 kDa.

Positive Controls: NIH/3T3 whole cell lysate: sc-2210, HeLa whole cell lysate: sc-2200 or K-562 whole cell lysate: sc-2203.

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



KDEL2 (E-17): sc-243149. Western blot analysis of KDEL2 expression in NIH/3T3 (A), HeLa (B), Jurkat (C) and K-562 (D) whole cell lysates.

RESEARCH USE

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