

CUZD1 (E-10): sc-514578

BACKGROUND

CUZD1 (CUB and zona pellucida-like domains 1), also known as ERG-1 (estrogen regulated gene 1) or UO-44, is a 607 amino acid single-pass type I membrane protein that contains two CUB domains and a ZP (zona-pellucida) domain. Expressed in pancreas and epithelium of ovary, CUZD1 is found at high levels in ovarian tumors where it is thought to inhibit cell attachment and proliferation. CUZD1 is suggested to play a role in cell motility, cell-cell interactions and/or interactions with the extracellular matrices. Existing as three alternatively spliced isoforms, CUZD1 is encoded by a gene located on human chromosome 10. Making up 4.5% of the human genome, chromosome 10 encodes roughly 800 genes including PTEN, a tumor suppressor gene that has been linked to the development of Cowden syndrome. The chromosome 10 encoded gene ERCC6 is important for DNA repair and is linked to Cockayne syndrome which is characterized by extreme photosensitivity and premature aging.

REFERENCES

1. Deloukas, P., et al. 2000. Report of the third international workshop on human chromosome 10 mapping and sequencing 1999. *Cytogenet. Cell Genet.* 90: 1-12.
2. Leong, C.T., et al. 2004. Molecular cloning, characterization and isolation of novel spliced variants of the human ortholog of a rat estrogen-regulated membrane-associated protein, UO-44. *Oncogene* 23: 5707-5718.
3. Yamazaki, K., et al. 2006. Identification and characterization of novel and unknown mouse epididymis-specific genes by complementary DNA microarray technology. *Biol. Reprod.* 75: 462-468.

CHROMOSOMAL LOCATION

Genetic locus: CUZD1 (human) mapping to 10q26.13; Cuzd1 (mouse) mapping to 7 F3.

SOURCE

CUZD1 (E-10) is a mouse monoclonal antibody raised against amino acids 328-412 mapping within an internal region of CUZD1 of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

CUZD1 (E-10) is available conjugated to agarose (sc-514578 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-514578 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-514578 PE), fluorescein (sc-514578 FITC), Alexa Fluor® 488 (sc-514578 AF488), Alexa Fluor® 546 (sc-514578 AF546), Alexa Fluor® 594 (sc-514578 AF594) or Alexa Fluor® 647 (sc-514578 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-514578 AF680) or Alexa Fluor® 790 (sc-514578 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

STORAGE

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

APPLICATIONS

CUZD1 (E-10) is recommended for detection of CUZD1 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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).

Suitable for use as control antibody for CUZD1 siRNA (h): sc-90351, CUZD1 siRNA (m): sc-142638, CUZD1 shRNA Plasmid (h): sc-90351-SH, CUZD1 shRNA Plasmid (m): sc-142638-SH, CUZD1 shRNA (h) Lentiviral Particles: sc-90351-V and CUZD1 shRNA (m) Lentiviral Particles: sc-142638-V.

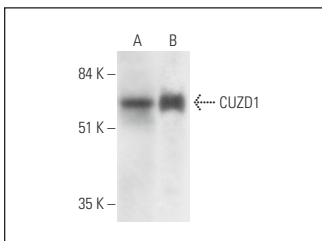
Molecular Weight of CUZD1: 68 kDa.

Positive Controls: HEK293 whole cell lysate: sc-45136, PC-12 cell lysate: sc-2250 or human pancreas extract: sc-363770.

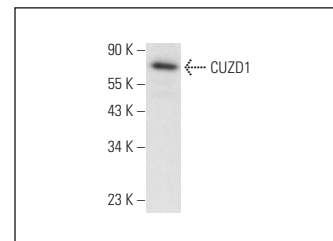
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BPHRP: sc-516102 or m-IgGκ BPHRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGκ BPFITC: sc-516140 or m-IgGκ BPE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



CUZD1 (E-10): sc-514578. Western blot analysis of CUZD1 expression in HEK293 whole cell lysate (A) and human pancreas tissue extract (B).



CUZD1 (E-10): sc-514578. Western blot analysis of CUZD1 expression in PC-12 whole cell lysate.

SELECT PRODUCT CITATIONS

1. Rygiel, A.M., et al. 2022. Variants in the pancreatic CUB and zona pellucida-like domains 1 (CUZD1) gene in early-onset chronic pancreatitis-A possible new susceptibility gene. *Pancreatology* 22: 564-571.

RESEARCH USE

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

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