

PTD012 (E-3): sc-390408

BACKGROUND

With approximately 135 million base pairs and 1,400 genes, chromosome 11 makes up around 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 β thalassemia are caused by *HBB* gene mutations. 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. The PTD012 gene product has been provisionally designated PTD012 pending further characterization.

REFERENCES

1. Grossfeld, P.D., et al. 2004. The 11q terminal deletion disorder: a prospective study of 110 cases. *Am. J. Med. Genet. A* 129A: 51-61.
2. Loussouarn, G., et al. 2006. KCNQ1 K⁺ channel-mediated cardiac channelopathies. *Methods Mol. Biol.* 337: 167-183.
3. Taylor, T.D., et al. 2006. Human chromosome 11 DNA sequence and analysis including novel gene identification. *Nature* 440: 497-500.

CHROMOSOMAL LOCATION

Genetic locus: C11orf54 (human) mapping to 11q21; 4931406C07Rik (mouse) mapping to 9 A2.

SOURCE

PTD012 (E-3) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 267-299 near the C-terminus of PTD012 of human origin.

PRODUCT

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

PTD012 (E-3) is available conjugated to agarose (sc-390408 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-390408 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-390408 PE), fluorescein (sc-390408 FITC), Alexa Fluor[®] 488 (sc-390408 AF488), Alexa Fluor[®] 546 (sc-390408 AF546), Alexa Fluor[®] 594 (sc-390408 AF594) or Alexa Fluor[®] 647 (sc-390408 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-390408 AF680) or Alexa Fluor[®] 790 (sc-390408 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-390408 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

STORAGE

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

APPLICATIONS

PTD012 (E-3) is recommended for detection of PTD012 isoforms 1-4 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

PTD012 (E-3) is also recommended for detection of PTD012 isoforms 1-4 in additional species, including equine.

Suitable for use as control antibody for PTD012 siRNA (h): sc-96701, 4931406C07Rik siRNA (m): sc-140220, PTD012 shRNA Plasmid (h): sc-96701-SH, 4931406C07Rik shRNA Plasmid (m): sc-140220-SH, PTD012 shRNA (h) Lentiviral Particles: sc-96701-V and 4931406C07Rik shRNA (m) Lentiviral Particles: sc-140220-V.

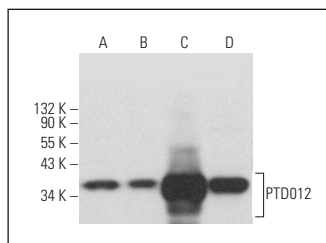
Molecular Weight of PTD012 isoforms: 23-35 kDa.

Positive Controls: rat kidney extract: sc-2394, rat liver extract: sc-2395 or c4 whole cell lysate: sc-364186.

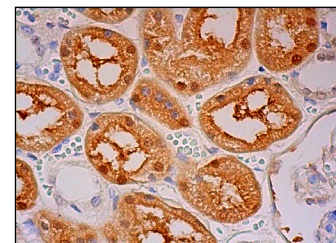
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (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-IgG κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz[®] Mounting Medium: sc-24941 or UltraCruz[®] Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgG κ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



PTD012 (E-3): sc-390408. Western blot analysis of PTD012 expression in c4 (A) and PC-12 (B) whole cell lysates and rat kidney (C) and rat liver (D) tissue extracts.



PTD012 (E-3): sc-390408. Immunoperoxidase staining of formalin fixed, paraffin-embedded human kidney tissue showing cytoplasmic and nuclear staining of cells in tubules.

RESEARCH USE

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

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