SANTA CRUZ BIOTECHNOLOGY, INC.

PA1 (H-1): sc-393387

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Chromosome 16 encodes over 900 genes in approximately 90 million base pairs, makes up nearly 3% of human cellular DNA and is associated with a variety of genetic disorders. The GAN gene is located on chromosome 16 and, with mutation, may lead to giant axonal neuropathy, a nervous system disorder characterized by increasing malfunction with growth. The rare disorder Rubinstein-Taybi syndrome is also associated with chromosome 16, though through the CREBBP gene which encodes a critical CREB binding protein. Signs of Rubinstein-Taybi include mental retardation and predisposition to tumor growth and white blood cell neoplasias. Crohn's disease is a gastrointestinal inflammatory condition associated with chromosome 16 through the NOD2 gene. An association with systemic lupus erythematosis and a number of other autoimmune disorders with the pericentromeric region of chromosome 16 has led to the identification of SLC5A11 as a potential autoimmune modifier.

REFERENCES

1. Ben Hamida, C., et al. 1997. Homozygosity mapping of giant axonal neuropathy gene to chromosome 16q24.1. Neurogenetics 1: 129-133.
2. Karlsson, J., et al. 2003. Novel quantitative trait loci controlling development of experimental autoimmune encephalomyelitis and proportion of lymphocyte subpopulations. J. Immunol. 170: 1019-1026.
3. Forabosco, P., et al. 2006. Meta-analysis of genome-wide linkage studies of systemic lupus erythematosus. Genes Immun. 7: 609-614.
4. Carneiro, L.A., et al. 2007. Nod-like receptors in innate immunity and inflammatory diseases. Ann. Med. 39: 581-593.
5. King, K., et al. 2007. Identification, evolution, and association study of a novel promoter and first exon of the human NOD2 (CARD15) gene. Genomics 90: 493-501.

CHROMOSOMAL LOCATION

Genetic locus: PAGR1 (human) mapping to 16p11.2; Pagr1a (mouse) mapping to 7 F3.

SOURCE

PA1 (H-1) is a mouse monoclonal antibody raised against amino acids 1-254 representing full length PA1 of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

PA1 (H-1) is available conjugated to agarose (sc-393387 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-393387 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-393387 PE), fluorescein (sc-393387 FITC), Alexa Fluor® 488 (sc-393387 AF488), Alexa Fluor® 546 (sc-393387 AF546), Alexa Fluor® 594 (sc-393387 AF594) or Alexa Fluor® 647 (sc-393387 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-393387 AF680) or Alexa Fluor® 790 (sc-393387 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

PA1 (H-1) is recommended for detection of PA1 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 PA1 siRNA (h): sc-92984, PA1 siRNA (m): sc-151975, PA1 shRNA Plasmid (h): sc-92984-SH, PA1 shRNA Plasmid (m): sc-151975-SH, PA1 shRNA (h) Lentiviral Particles: sc-92984-V and PA1 shRNA (m) Lentiviral Particles: sc-151975-V.

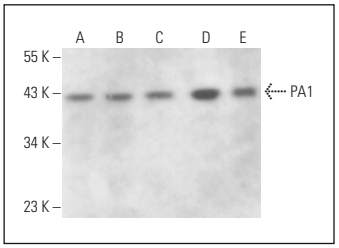
Molecular Weight of PA1: 42 kDa.

Positive Controls: PA1 (h): 293T Lysate: sc-370549, MCF7 whole cell lysate: sc-2206 or M1 whole cell lysate: sc-364782.

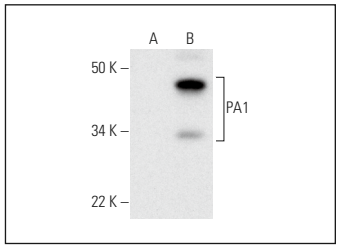
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ 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-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



PA1 (H-1): sc-393387. Western blot analysis of PA1 expression in MCF7 (**A**), NTERA-2 cl.D1 (**B**), M1 (**C**) and F9 (**D**) whole cell lysates and KNRK nuclear extract (**E**).



PA1 (H-1): sc-393387. Western blot analysis of PA1 expression in non-transfected: sc-117752 (**A**) and human PA1 transfected: sc-370549 (**B**) 293T whole cell lysates.

STORAGE

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

RESEARCH USE

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