SANTA CRUZ BIOTECHNOLOGY, INC.

PIST (A-7): sc-393026

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

PIST (PDZ protein interacting specifically with TC10), also known as GOPC (Golgi associated PDZ and coiled-coil motif containing), CAL or FIG, is a 462 amino acid protein that localizes to the cytoplasm, as well as to the membrane of the Golgi apparatus and to the cell junction. Expressed ubiquitously and containing one PDZ (DHR) domain, PIST functions as a homooligomer that interacts with a variety of proteins and plays a role in intracellular protein trafficking and degradation. Additionally, PIST is thought to regulate ionic currents via membrane channel modification and may also play a role in autophagy. Chromosomal aberrations in the gene encoding PIST are found in glioblastoma multiform (GBM), a common and aggressive form of brain tumor, suggesting a role for mutated PIST in carcinogenesis. Three isoforms of PIST exist due to alternative splicing events.

CHROMOSOMAL LOCATION

Genetic locus: GOPC (human) mapping to 6q22.1; Gopc (mouse) mapping to 10 B3.

SOURCE

PIST (A-7) is a mouse monoclonal antibody raised against amino acids 158-291 mapping within an internal region of PIST of human origin.

PRODUCT

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

PIST (A-7) is available conjugated to agarose (sc-393026 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-393026 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-393026 PE), fluorescein (sc-393026 FITC), Alexa Fluor® 488 (sc-393026 AF488), Alexa Fluor® 546 (sc-393026 AF546), Alexa Fluor® 594 (sc-393026 AF594) or Alexa Fluor® 647 (sc-393026 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-393026 AF680) or Alexa Fluor® 790 (sc-393026 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

PIST (A-7) is recommended for detection of PIST 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).

PIST (A-7) is also recommended for detection of PIST in additional species, including canine, bovine and porcine.

Suitable for use as control antibody for PIST siRNA (h): sc-76148, PIST siRNA (m): sc-76149, PIST shRNA Plasmid (h): sc-76148-SH, PIST shRNA Plasmid (m): sc-76149-SH, PIST shRNA (h) Lentiviral Particles: sc-76148-V and PIST shRNA (m) Lentiviral Particles: sc-76149-V.

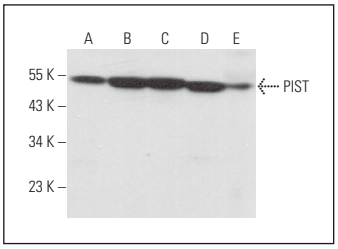
Molecular Weight of PIST isoforms: 60/46/35 kDa.

Positive Controls: K-562 whole cell lysate: sc-2203, NIH/3T3 whole cell lysate: sc-2210 or IMR-32 cell lysate: sc-2409.

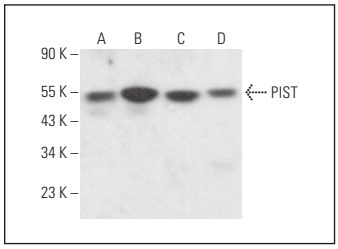
RECOMMENDED SUPPORT REAGENTS

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



PIST (A-7): sc-393026. Western blot analysis of PIST expression in HeLa (**A**), K-562 (**B**), IMR-32 (**C**) and NIH/3T3 (**D**) whole cell lysates and rat cerebellum tissue extract (**E**).



PIST (A-7): sc-393026. Western blot analysis of PIST expression in K-562 (**A**), IMR-32 (**B**), NIH/3T3 (**C**) and Neuro-2A (**D**) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Luo, W.Y., et al. 2019. PDZ scaffold protein CAL couples with metabotropic glutamate receptor 5 to protect against cell apoptosis and is a potential target in the teatment of Parkinson's disease. Neurotherapeutics 16: 761-783.
2. Houghton, F.J., et al. 2022. Interacting partners of Golgi-localized small G protein Arl5b identified by a combination of *in vivo* proximity labelling and GFP-Trap pull down. FEBS Lett. 596: 2382-2399.

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.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.