SANTA CRUZ BIOTECHNOLOGY, INC.

Ptx3 (C-10): sc-373951

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Pentraxins are a protein superfamily that is characterized by a cyclic multimeric structure. Ptx3, also known as tumor necrosis factor-stimulated gene sequence-14 (TSG14), is a secreted pattern-recognition receptor that has a non-redundant role in resistance to selected microbial agents. Ptx3 belongs to the family of "long pentraxins", which have C-terminal pentraxin domains and novel amino-terminal domains. Ptx3 binds selected pathogens, including *Aspergillus fumigatus, Pseudomonas aeruginosa* and *Salmonella typhimurium*. It is synthesized in IgA glomerulonephritis and activates mesangial cells. Secretion of Ptx3 in adipose cells can be induced by TNFα. Ptx3 is also involved in amplification of inflammatory reactions and regulation of innate immunity. The human PTX3 gene maps to chromosome 3q25.32.

CHROMOSOMAL LOCATION

Genetic locus: PTX3 (human) mapping to 3q25.32; Ptx3 (mouse) mapping to 3 E1.

SOURCE

Ptx3 (C-10) is a mouse monoclonal antibody raised against amino acids 21-320 (deletion 89-152) mapping within an internal region of Ptx3 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.

Ptx3 (C-10) is available conjugated to agarose (sc-373951 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-373951 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-373951 PE), fluorescein (sc-373951 FITC), Alexa Fluor® 488 (sc-373951 AF488), Alexa Fluor® 546 (sc-373951 AF546), Alexa Fluor® 594 (sc-373951 AF594) or Alexa Fluor® 647 (sc-373951 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-373951 AF680) or Alexa Fluor® 790 (sc-373951 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

Ptx3 (C-10) is recommended for detection of Ptx3 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 Ptx3 siRNA (h): sc-39817, Ptx3 siRNA (m): sc-39818, Ptx3 shRNA Plasmid (h): sc-39817-SH, Ptx3 shRNA Plasmid (m): sc-39818-SH, Ptx3 shRNA (h) Lentiviral Particles: sc-39817-V and Ptx3 shRNA (m) Lentiviral Particles: sc-39818-V.

Molecular Weight of Ptx3: 45 kDa.

Positive Controls: HUV-EC-C whole cell lysate: sc-364180, BC_3H1 cell lysate: sc-2299 or HeLa whole cell lysate: sc-2200.

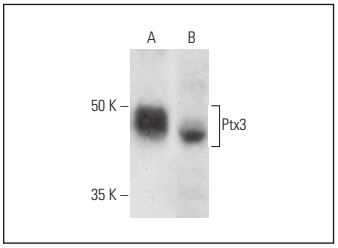
RESEARCH USE

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

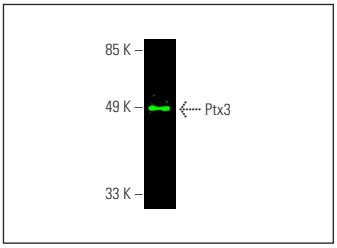
STORAGE

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

DATA



Ptx3 (C-10): sc-373951. Western blot analysis of Ptx3 expression in HUV-EC-C (**A**) and BC_3H1 (**B**) whole cell lysates.



Ptx3 (C-10): sc-373951. Near-infrared western blot analysis of Ptx3 expression in HUV-EC-C whole cell lysate. Blocked with UltraCruz® Blocking Reagent: sc-516214. Detection reagent used: m-IgGκ BP-CFL 680: sc-516180.

SELECT PRODUCT CITATIONS

1. Yu, L.M., et al. 2018. MicroRNA-224 inhibition prevents progression of cervical carcinoma by targeting Ptx3. J. Cell. Biochem. 119: 10278-10290.
2. Mou, P., et al. 2018. Ptx3: a potential biomarker in thyroid associated ophthalmopathy. Biomed Res. Int. 2018: 5961974.
3. Farini, A., et al. 2020. Ptx3 predicts myocardial damage and fibrosis in duchenne muscular dystrophy. Front. Physiol. 11: 403.
4. Ma, M., et al. 2021. Smad-specific E3 ubiquitin ligase 2 promotes angiogenesis by facilitating Ptx3 degradation in MSCs from patients with ankylosing spondylitis. Stem Cells 39: 581-599.
5. Farini, A., et al. 2022. Inhibition of the immunoproteasome modulates innate immunity to ameliorate muscle pathology of dysferlin-deficient BIAJ mice. Cell Death Dis. 13: 975.
6. Hwang, N., et al. 2023. Creeping fat exhibits distinct Inflammation-specific adipogenic preadipocytes in Crohn's disease. Front. Immunol. 14: 1198905.
7. Parveen, S., et al. 2024. Bacterial pore-forming toxin pneumolysin drives pathogenicity through host extracellular vesicles released during infection. iScience 27: 110589.
8. Zhang, M., et al. 2024. Vitamin D3 reduces the symptoms of ovarian hyperstimulation syndrome in mice and inhibits the release of granulosa cell angiogenic factor through pentraxin 3. In Vitro Cell. Dev. Biol. Anim. 60: 432-440.

PROTOCOLS

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