SANTA CRUZ BIOTECHNOLOGY, INC.

PBEF (H-11): sc-166946

BACKGROUND

Pre-B cell-enhancing factor (PBEF), also designated nicotinamide phosphoribosyltransferase (Nampt) or visfatin, belongs to the NAPRTase family of proteins. PBEF may be involved in enhancing the effect of IL-7 and SCF on the formation of early B-lineage precursor colonies. It is involved in the catalysis of nicotinamide with 5-phosphoribosyl-1-pyrophosphate, yielding nicotinamide mononucleotide, which is important in NAD biosynthesis. This is a rate limiting step in the NAD biosynthesis pathway. Highly enriched in the visceral fat of both human and mice, PBEF expression levels in plasma increase during the development of obesity. PBEF is a cytoplasmic protein expressed primarily in bone marrow, muscle and liver tissue, but it can also be detected in placenta, lung, kidney and heart tissue.

CHROMOSOMAL LOCATION

Genetic locus: NAMPT (human) mapping to 7q22.3; Nampt (mouse) mapping to 12 A3.

SOURCE

PBEF (H-11) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 420-450 near the C-terminus of PBEF 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.

Blocking peptide available for competition studies, sc-166946 P, (100 µg 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

PBEF (H-11) is recommended for detection of Pre-B cell enhancing factor 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), 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).

PBEF (H-11) is also recommended for detection of Pre-B cell enhancing factor in additional species, including equine, canine and bovine.

Suitable for use as control antibody for PBEF siRNA (h): sc-45843, PBEF siRNA (m): sc-45844, PBEF shRNA Plasmid (h): sc-45843-SH, PBEF shRNA Plasmid (m): sc-45844-SH, PBEF shRNA (h) Lentiviral Particles: sc-45843-V and PBEF shRNA (m) Lentiviral Particles: sc-45844-V.

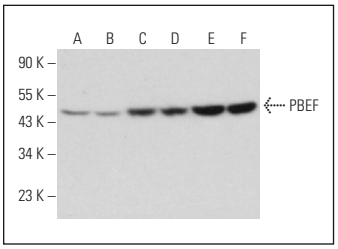
Molecular Weight of PBEF: 52 kDa.

Positive Controls: RAW 264.7 whole cell lysate: sc-2211, Raji whole cell lysate: sc-364236 or BJAB whole cell lysate: sc-2207.

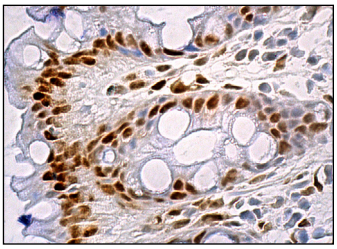
RECOMMENDED SUPPORT REAGENTS

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. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



PBEF (H-11): sc-166946. Western blot analysis of PBEF expression in RAW 264.7 (**A**), WEHI-231 (**B**), WR19L (**C**), NAMALWA (**D**), Raji (**E**) and BJAB (**F**) whole cell lysates.



PBEF (H-11): sc-166946. Immunoperoxidase staining of formalin fixed, paraffin-embedded human rectum tissue showing nuclear and cytoplasmic staining of glandular cells.

SELECT PRODUCT CITATIONS

1. Ke, H.L., et al. 2015. High visfatin expression predicts poor prognosis of upper tract urothelial carcinoma patients. Am. J. Cancer Res. 5: 2447-2454.
2. Yeo, D., et al. 2020. Aging alters acetylation status in skeletal and cardiac muscles. Geroscience 42: 963-976.
3. Zou, Y., et al. 2020. Illuminating NAD^+ metabolism in live cells and *in vivo* using a genetically encoded fluorescent sensor. Dev. Cell 53: 240-252.e7.
4. Martínez-Morcillo, F.J., et al. 2021. NAMPT-derived NAD^+ fuels PARP1 to promote skin inflammation through parthanatos cell death. PLoS Biol. 19: e3001455.

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.