

PBF (E-8): sc-376960

BACKGROUND

PBF, also known as PTTG1IP (pituitary tumor-transforming 1 interacting protein), is a 180 amino acid single-pass type I membrane protein that localizes to both the cytoplasm and the nucleus and contains a coiled-coil domain. Expressed ubiquitously, PBF interacts with PTTG and is thought to facilitate the nuclear translocation of PTTG, thereby allowing the PTTG-dependent transcriptional activation of fibroblast growth factor (FGF). The gene encoding PBF maps to human chromosome 21, which houses approximately 300 genes and comprises nearly 1.5% of the human genome. Chromosome 21-associated disorders include Alzheimer's disease, amyotrophic lateral sclerosis and, most notably, Down syndrome (also known as trisomy 21).

REFERENCES

1. Yaspo, M.L., et al. 1995. Model for a transcript map of human chromosome 21: isolation of new coding sequences from exon and enriched cDNA libraries. *Hum. Mol. Genet.* 4: 1291-1304.
2. Yaspo, M.L., et al. 1998. Cloning of a novel human putative type Ia integral membrane protein mapping to 21q22.3. *Genomics* 49: 133-136.
3. Chien, W. and Pei, L. 2000. A novel binding factor facilitates nuclear translocation and transcriptional activation function of the pituitary tumor-transforming gene product. *J. Biol. Chem.* 275: 19422-19427.
4. Online Mendelian Inheritance in Man, OMIM™. 2000. Johns Hopkins University, Baltimore, MD. MIM Number: 603784. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
5. Boelaert, K., et al. 2003. A potential role for PTTG/securin in the developing human fetal brain. *FASEB J.* 17: 1631-1639.

CHROMOSOMAL LOCATION

Genetic locus: PTTG1IP (human) mapping to 21q22.3; Pttg1ip (mouse) mapping to 10 C1.

SOURCE

PBF (E-8) is a mouse monoclonal antibody raised against a peptide mapping near the C-terminus of PBF of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

PBF (E-8) is available conjugated to agarose (sc-376960 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-376960 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-376960 PE), fluorescein (sc-376960 FITC), Alexa Fluor® 488 (sc-376960 AF488), Alexa Fluor® 546 (sc-376960 AF546), Alexa Fluor® 594 (sc-376960 AF594) or Alexa Fluor® 647 (sc-376960 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-376960 AF680) or Alexa Fluor® 790 (sc-376960 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

RESEARCH USE

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

APPLICATIONS

PBF (E-8) is recommended for detection of PBF 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 PBF siRNA (h): sc-91397, PBF siRNA (m): sc-152041, PBF shRNA Plasmid (h): sc-91397-SH, PBF shRNA Plasmid (m): sc-152041-SH, PBF shRNA (h) Lentiviral Particles: sc-91397-V and PBF shRNA (m) Lentiviral Particles: sc-152041-V.

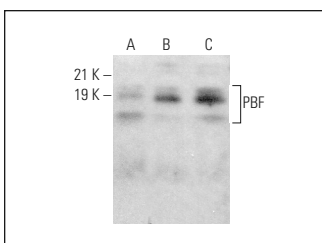
Molecular Weight of PBF: 22 kDa.

Positive Controls: M1 whole cell lysate: sc-364782, PBF (h3): 293 Lysate: sc-113644 or RAW 264.7 whole cell lysate: sc-2211.

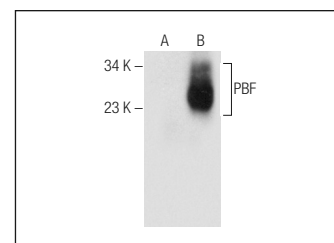
RECOMMENDED SUPPORT REAGENTS

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



PBF (E-8): sc-376960. Western blot analysis of PBF expression in MH-S (A), M1 (B) and RAW 264.7 (C) whole cell lysates.



PBF (E-8): sc-376960. Western blot analysis of PBF expression in non-transfected: sc-110760 (A) and human PBF transfected: sc-113644 (B) 293 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.

PROTOCOLS

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

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