

## PBF (H-55): sc-292628

### 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

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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., et al. 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.
6. Tfelt-Hansen, J., et al. 2004. Expression of pituitary tumor transforming gene (PTTG) and its binding protein in human astrocytes and astrocytoma cells: function and regulation of PTTG in U87 astrocytoma cells. *Endocrinology* 145: 4222-4231.
7. Boelaert, K., et al. 2007. PTTG and PBF repress the human sodium iodide symporter. *Oncogene* 26: 4344-4356.

### CHROMOSOMAL LOCATION

Genetic locus: PTTG1IP (human) mapping to 21q22.3; Pttg1 ip (mouse) mapping to 10 C1.

### SOURCE

PBF (H-55) is a rabbit polyclonal antibody raised against amino acids 123-177 mapping near the C-terminus of PBF of human origin.

### PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

### STORAGE

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

### APPLICATIONS

PBF (H-55) is recommended for detection of PBF of mouse, rat and human origin by Western Blotting (starting dilution 1:200, 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).

PBF (H-55) is also recommended for detection of PBF in additional species, including canine and porcine.

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.

### RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

### RESEARCH USE

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

### PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.