SANTA CRUZ BIOTECHNOLOGY, INC.

PIBF (h): 293T Lysate: sc-116389

BACKGROUND

PIBF (progesterone-induced blocking factor 1) is synthesized during pregnancy in response to progesterone by progesterone receptor-positive T lymphocytes (mostly γ-δ T cells). In the presence of PIBF, natural killer (NK) cells inhibit the release of perforin from storage granules and therefore fail to lyse target cells. In humans, the amount of cells that express PIBF is significantly higher in healthy pregnant women than in women at risk for premature pregnancy termination. Full-length PIBF is associated with the nucleus, whereas secretion of shorter forms is induced by activation of the cell. Research suggests that PIBF functions as a transcription factor in its full-length form, while smaller forms may act as cytokines. The PIBF gene encodes a deduced hydrophilic 757-amino acid α-helical protein with an N-terminal signal sequence, a leucine zipper motif, a basic zipper sequence, a PEST sequence, a nuclear localization signal, an endoplasmic reticulum membrane retention signal, and many presumeed N-glycosylation and phosphorylation sites.

REFERENCES

1. Check, J.H., et al. 1997. Lymphocyte immunotherapy (LI) increases serum levels of progesterone induced blocking factor (PIBF). Am. J. Reprod. Immunol. 37: 17-20.
2. Check, J.H., et al. 1997. Expression of an immuno-modulatory protein known as PIBF does not correlate with first trimester spontaneous abortions in progesterone supplemented women. Am. J. Reprod. Immunol. 37: 330-334.
3. Laskarin, G., et al. 2002. Progesterone induced blocking factor (PIBF) mediates progesterone induced suppression of decidual lymphocyte cytotoxicity. Am. J. Reprod. Immunol. 48: 201-209.
4. Polgar, B., et al. 2003. Molecular cloning and immunologic characterization of a novel cDNA coding for progesterone-induced blocking factor. J. Immunol. 171: 5956-5963.
5. Lachmann, M., et al. 2004. PIBF (progesterone induced blocking factor) is overexpressed in highly proliferating cells and associated with the centrosome. Int. J. Cancer 112: 51-60.
6. Check, J.H., et al. 2005. Miscarriage in the first trimester according to the presence or absence of the progesterone-induced blocking factor at three to five weeks from conception in progesterone supplemented women. Clin. Exp. Obstet. Gynecol. 32: 13-14.
7. Kalinka, J. and Szekeres-Bartho, J. 2005. The impact of dydrogesterone supplementation on hormonal profile and progesterone-induced blocking factor concentrations in women with threatened abortion. Am. J. Reprod. Immunol. 53: 166-171.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

PROTOCOLS

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

CHROMOSOMAL LOCATION

Genetic locus: PIBF1 (human) mapping to 13q22.1.

PRODUCT

PIBF (h): 293T Lysate represents a lysate of human PIBF transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

PIBF (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive PIBF antibodies. Recommended use: 10-20 µl per lane.

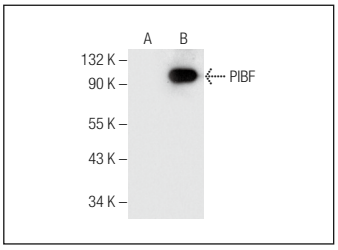
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

PIBF (A-2): sc-376840 is recommended as a positive control antibody for Western Blot analysis of enhanced human PIBF expression in PIBF transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

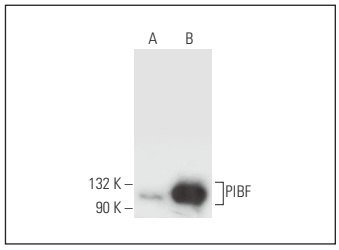
RECOMMENDED SUPPORT REAGENTS

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.

DATA



PIBF (A-2): sc-376840. Western blot analysis of PIBF expression in non-transfected: sc-117752 (**A**) and human PIBF transfected: sc-116389 (**B**) 293T whole cell lysates.



PIBF (G-10): sc-271504. Western blot analysis of PIBF expression in non-transfected: sc-117752 (**A**) and human PIBF transfected: sc-116389 (**B**) 293T whole cell lysates.

RESEARCH USE

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