SANTA CRUZ BIOTECHNOLOGY, INC.

PDEF (K-14): sc-46445

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Prostate epithelium-specific Ets transcription factor (PDEF), also designated Prostate Ets or SAM pointed domain containing ets transcription factor, is a 335 amino acid nuclear protein. PDEF belongs to the ETS family of proteins. This protein, which localizes to prostate epithelial cells, functions as an ETS transcription factor. It upregulates the activity of the p62 promotor but this activity can be downregulated by PSI. It is also involved in the activation of prostate-specific antigen (PSA) by acting as an androgen-independent transactivator.

REFERENCES

1. Oettgen, P., et al. 2000. PDEF, a novel prostate epithelium-specific ets transcription factor, interacts with the androgen receptor and activates prostate-specific antigen gene expression. J. Biol. Chem. 275: 1216-1225.
2. Yamada, N., et al. 2000. Cloning and expression of the mouse Pse gene encoding a novel Ets family member. Gene 241: 267-274.
3. Chen, H., et al. 2002. NKX-3.1 interacts with prostate-derived Ets factor and regulates the activity of the PSA promoter. Cancer Res. 62: 338-340.
4. Feldman, R.J., et al. 2003. Pdef expression in human breast cancer is correlated with invasive potential and altered gene expression. Cancer Res. 63: 4626-4631.
5. Thompson, H.G., et al. 2003. p62 overexpression in breast tumors and regulation by prostate-derived Ets factor in breast cancer cells. Oncogene 22: 2322-2333.
6. Chen, H., et al. 2005. Structural and functional analysis of domains mediating interaction between NKX-3.1 and PDEF. J. Cell. Biochem. 94: 168-177.
7. Wang, Y., et al. 2005. Analysis of the 2.0 A crystal structure of the protein-DNA complex of the human PDEF Ets domain bound to the prostate specific antigen regulatory site. Biochemistry 44: 7095-7106.

CHROMOSOMAL LOCATION

Genetic locus: SPDEF (human) mapping to 6p21.31; Spdef (mouse) mapping to 17 A3.3.

SOURCE

PDEF (K-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of PDEF 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. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-46445 X, 200 µg/0.1 ml.

Blocking peptide available for competition studies, sc-46445 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

PDEF (K-14) is recommended for detection of PDEF of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

PDEF (K-14) is also recommended for detection of PDEF in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for PDEF siRNA (h): sc-45845, PDEF siRNA (m): sc-45846, PDEF shRNA Plasmid (h): sc-45845-SH, PDEF shRNA Plasmid (m): sc-45846-SH, PDEF shRNA (h) Lentiviral Particles: sc-45845-V and PDEF shRNA (m) Lentiviral Particles: sc-45846-V.

PDEF (K-14) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of PDEF: 37 kDa.

Molecular Weight of glycosylated PDEF: 50 kDa.

Positive Controls: DU 145 nuclear extract: sc-24960, MCF7 nuclear extract: sc-2149 or PC-3 nuclear extract: sc-2152.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (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 or our catalog for detailed protocols and support products.