

BPTF (H-42): sc-98404

BACKGROUND

BPTF (nucleosome-remodeling factor subunit BPTF, bromodomain and PHD finger-containing transcription factor) is a 2,907 amino acid protein encoded by the human gene BPTF. BPTF belongs to the PBTF family and contains one bromodomain, one DDT domain and two PHD-type zinc fingers. BPTF acts as a histone-binding component of NURF (nucleosome-remodeling factor). The NURF complex, which consists of SMARCA1, BPTF, RbAp46 and RbAp48, acts to catalyze ATP-dependent nucleosome sliding and facilitates transcription of chromatin. It specifically recognizes Histone H3 tails trimethylated on "Lys 4" (H3-K4Me3), which mark transcription start sites of virtually all active genes. BPTF may also help regulate transcription through direct binding to DNA or transcription factors.

REFERENCES

- Jordan-Sciutto, K.L., Dragich, J.M., Rhodes, J.L. and Bowser, R. 2000. Fetal Alz-50 clone 1, a novel zinc-finger protein, binds a specific DNA sequence and acts as a transcriptional regulator. *J. Biol. Chem.* 274: 35262-35268.
- Jordan-Sciutto, K.L., Dragich, J.M., Caltagareone, J., Hall, D.J. and Bowser, R. 2000. Fetal Alz-50 clone 1 (FAC1) protein interacts with the Myc-associated zinc-finger protein (ZF87/MAZ) and alters its transcriptional activity. *Biochemistry* 39: 3206-3215.
- Strachan, G.D., Morgan, K.L., Otis, L.L., Caltagareone, J., Gittis, A., Bowser, R. and Jordan-Sciutto, K.L. 2004. Fetal Alz-50 clone 1 interacts with the human orthologue of the Kelch-like Ech-associated protein. *Biochemistry* 43: 12113-12122.
- Olsen, J.V., Blagoev, B., Gnad, F., Macek, B., Kumar, C., Mortensen, P. and Mann, M. 2006. Global, *in vivo*, and site-specific phosphorylation dynamics in signaling networks. *Cell* 127: 635-648.
- Wysocka, J., Swigut, T., Xiao, H., Milne, T.A., Kwon, S.Y., Landry, J., Kauer, M., Tackett, A.J., Chait, B.T., Badenhorst, P., Wu, C. and Allis, C.D. 2006. A PHD finger of NURF couples Histone H3 Lysine 4 trimethylation with chromatin remodelling. *Nature* 442: 86-90.
- Li, H., Ilin, S., Wang, W., Duncan, E.M., Wysocka, J., Allis, C.D. and Patel, D.J. 2006. Molecular basis for site-specific read-out of Histone H3-K4Me3 by the BPTF PHD finger of NURF. *Nature* 442: 91-95.
- Matsuoka, S., Ballif, B.A., Smogorzewska, A., Hurov, K.E., Luo, J., Bakalarski, C.E., Zhao, Z., Solimini, N., Lerenthal, Y., Shiloh, Y., Gygi, S.P. and Elledge, S.J. 2007. ATM and ATR substrate analysis reveals extensive protein networks responsive to DNA damage. *Science* 316: 1160-1166.

CHROMOSOMAL LOCATION

Genetic locus: BPTF (human) mapping to 17q24.2; Bptf (mouse) mapping to 11 E1.

SOURCE

BPTF (H-42) is a rabbit polyclonal antibody raised against amino acids 133-174 mapping near the N-terminus of BPTF 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-98404 X, 200 µg/0.1 ml.

APPLICATIONS

BPTF (H-42) is recommended for detection of BPTF 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), 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).

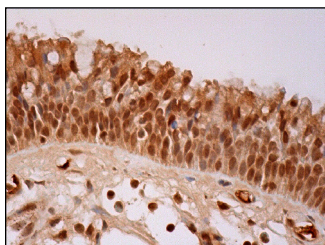
BPTF (H-42) is also recommended for detection of BPTF in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for BPTF siRNA (h): sc-93894, BPTF siRNA (m): sc-141734, BPTF shRNA Plasmid (h): sc-93894-SH, BPTF shRNA Plasmid (m): sc-141734-SH, BPTF shRNA (h) Lentiviral Particles: sc-93894-V and BPTF shRNA (m) Lentiviral Particles: sc-141734-V.

BPTF (H-42) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of BPTF: 325 kDa.

DATA



BPTF (H-42): sc-98404. Immunoperoxidase staining of formalin fixed, paraffin-embedded human nasopharynx tissue showing nuclear and cytoplasmic staining of respiratory epithelial cells.

STORAGE

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

RESEARCH USE

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


 MONOS
 Satisfaction
 Guaranteed

Try **BPTF (2343C3a): sc-81088**, our highly recommended monoclonal alternative to BPTF (H-42).