ZBED4 (N-18): sc-86942



The Power to Question

BACKGROUND

The zinc finger BED domain-containing protein family (ZBED) is comprised of ZBED1, ZBED2, ZBED3, ZBED4 and ZBED5. They each contain one BED-type zinc finger domains with the exception of ZBED4, which contain four BED-type zinc finger domains. ZBED1 is thought to function as a transcription factor that regulates a number of ribosomal protein (RP) encoded genes by binding specifically to 5'-TGTCG[CT]GA[CT]A-3' DNA regions found in RP promotors. ZBED3 is an Axin-binding protein involved in Wnt/ β -catenin signaling modulation. ZBED4 expression has been shown in human and mouse retinas where it is thought to act as a regulatory protein in cone photoreceptors and Müller cells. The functions of ZBED2 and ZBED5 have yet to be elucidated.

REFERENCES

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- Nagase, T., et al. 1998. Prediction of the coding sequences of unidentified human genes. XI. The complete sequences of 100 new cDNA clones from brain which code for large proteins in vitro. DNA Res. 5: 277-286.
- 3. Esposito, T., et al. 1999. A novel pseudoautosomal human gene encodes a putative protein similar to Ac-like transposases. Hum. Mol. Genet. 8: 61-67.
- Ohshima, N., et al. 2003. Identification of a human homologue of the DREF transcription factor with a potential role in regulation of the Histone H1 gene. J. Biol. Chem. 278: 22928-22938.
- Yamashita, D., et al. 2007. Human DNA replication-related element binding factor (hDREF) self-association via hATC domain is necessary for its nuclear accumulation and DNA binding. J. Biol. Chem. 282: 7563-7575.
- Yamashita, D., et al. 2007. hDREF regulates cell proliferation and expression of ribosomal protein genes. Mol. Cell. Biol. 27: 2003-2013.
- 7. Saghizadeh, M., et al. 2009. ZBED4, a BED-type zinc-finger protein in the cones of the human retina. Invest. Ophthalmol. Vis. Sci. 50: 3580-3588.

CHROMOSOMAL LOCATION

Genetic locus: ZBED4 (human) mapping to 22q13.33; Zbed4 (mouse) mapping to 15 E3.

SOURCE

ZBED4 (N-18) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within an internal region of ZBED4 of human origin.

PRODUCT

Each vial contains 100 μg lgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-86942 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-86942 X, 100 $\mu g/0.1$ ml.

RESEARCH USE

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

APPLICATIONS

ZBED4 (N-18) is recommended for detection of ZBED4 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); non cross-reactive with ZBED2.

ZBED4 (N-18) is also recommended for detection of ZBED4 in additional species, including equine, canine and avian.

Suitable for use as control antibody for ZBED4 siRNA (h): sc-76947, ZBED4 siRNA (m): sc-155434, ZBED4 shRNA Plasmid (h): sc-76947-SH, ZBED4 shRNA Plasmid (m): sc-155434-SH, ZBED4 shRNA (h) Lentiviral Particles: sc-76947-V and ZBED4 shRNA (m) Lentiviral Particles: sc-155434-V.

ZBED4 (N-18) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

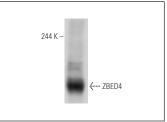
Molecular Weight of ZBED4: 135 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200.

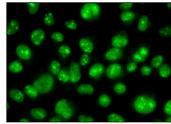
RECOMMENDED SECONDARY REAGENTS

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.

DATA



ZBED4 (N-18): sc-86942. Western blot analysis of ZBED4 expression in HeLa whole cell lysate.



ZBED4 (N-18): sc-86942. Immunofluorescence staining of formalin-fixed Hela cells showing nucleolar and nuclear localization. Kindly provided by Yang Xiang, Ph.D., Division of Newborn Medicine, Boston Childrens Hospital, Cell Biology Department, Harvard Medical School

STORAGE

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