SANTA CRUZ BIOTECHNOLOGY, INC.

HBO1 (T-20): sc-13284

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

In the cell, transcription is regulated in part by the histone modification of chromatin. Specifically, histone acetyltransferase proteins and their associated complexes function with coactivators to regulate transcription. One family of histone acetyltransferases is the MYST family of transcriptional silencers, which is linked to ORC (origin recognition complex) function. The ORC is an initiator protein for DNA replication and mediates the acetylation of chromatin to control both DNA replication and gene expression. HBO1 (histone acetyltransferase binding to ORC) is a MYST family protein that interacts with ORC1, the largest subunit of the human ORC complex. HBO1 is a nuclear protein that is highly expressed in human testis. In addition to binding ORC, HBO1 represses AR (androgen receptor)-mediated transcription by binding AR through its N-terminal transcriptional repression domain. HBO1 may play a role in regulating AR-dependent gene transcription in normal and prostate cancer cells.

CHROMOSOMAL LOCATION

Genetic locus: KAT7 (human) mapping to 17q21.33; Kat7 (mouse) mapping to 11 D.

SOURCE

HBO1 (T-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of HBO1 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.

Blocking peptide available for competition studies, sc-13284 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

RESEARCH USE

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

APPLICATIONS

HBO1 (T-20) is recommended for detection of HBO1 of mouse 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). HBO1 (T-20) is also recommended for detection of HBO1 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for HBO1 siRNA (h): sc-35530, HBO1 siRNA (m): sc-35531, HBO1 shRNA Plasmid (h): sc-35530-SH, HBO1 shRNA Plasmid (m): sc-35531-SH, HBO1 shRNA (h) Lentiviral Particles: sc-35530-V and HBO1 shRNA (m) Lentiviral Particles: sc-35531-V.

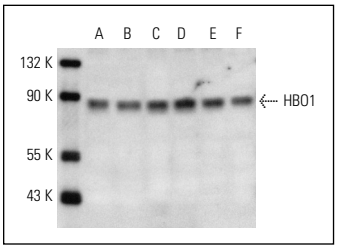
Molecular Weight of HBO1: 83 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, Caki-1 cell lysate: sc-2224 or A-673 nuclear extract: sc-2128.

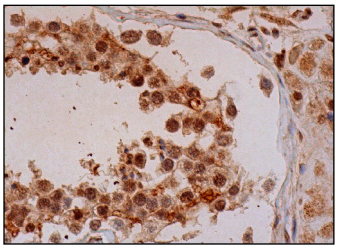
RECOMMENDED SECONDARY REAGENTS

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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. 4) Immunohistochemistry: use ImmunoCruz™: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

DATA



HBO1 (T-20): sc-13284. Western blot analysis of HBO1 expression in HeLa (**A**) and Caki-1 (**B**) whole cell lysates and SK-BR-3 (**C**), A673 (**D**), HeLa (**E**) and A-431 (**F**) nuclear extracts.



HBO1 (T-20): sc-13284. Immunoperoxidase staining of formalin fixed, paraffin-embedded human testis tissue showing nuclear and cytoplasmic staining of cells in seminiferous ducts and Leydig cells.

SELECT PRODUCT CITATIONS

1. Sugimoto, N., et al. 2011. Chromatin remodeler sucrose nonfermenting 2 homolog (SNF2H) is recruited onto DNA replication origins through interaction with Cdc10 protein-dependent transcript 1 (Cdt1) and promotes pre-replication complex formation. J. Biol. Chem. 286: 39200-39210.
2. You, L., et al. 2015. The chromatin regulator brpf1 regulates embryo development and cell proliferation. J. Biol. Chem. 290: 11349-11364.
3. You, L., et al. 2015. The lysine acetyltransferase activator Brpf1 governs dentate gyrus development through neural stem cells and progenitors. PLoS Genet. 11: e1005034.

STORAGE

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