

# HBO1 (N-18): sc-13283

## 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 co-activators 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; Myst2 (mouse) mapping to 11 D.

## SOURCE

HBO1 (N-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping at 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-13283 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

HBO1 (N-18) is recommended for detection of HBO1 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).

HBO1 (N-18) 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.

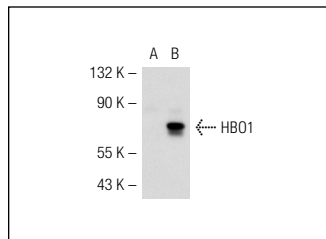
Molecular Weight of HBO1: 83 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, HBO1 (m): 293T Lysate: sc-125432 or Caki-1 cell lysate: sc-2224.

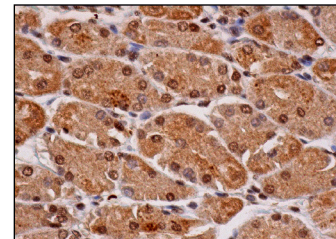
## STORAGE

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

## DATA



HBO1 (N-18): sc-13283. Western blot analysis of HBO1 expression in non-transfected: sc-117752 (A) and mouse HBO1 transfected: sc-125432 (B) 293T whole cell lysates.



HBO1 (N-18): sc-13283. Immunoperoxidase staining of formalin fixed, paraffin-embedded human upper stomach tissue showing nuclear and cytoplasmic staining of glandular cells.

## SELECT PRODUCT CITATIONS

- Johmura, Y., et al. 2008. FAD24 acts in concert with histone acetyltransferase HBO1 to promote adipogenesis by controlling DNA replication. *J. Biol. Chem.* 283: 2265-2274.
- Johmura, Y., et al. 2008. FAD24, a regulator of adipogenesis and DNA replication, inhibits H-RAS-mediated transformation by repressing NFκB activity. *Biochem. Biophys. Res. Commun.* 369: 464-470.
- Johmura, Y., et al. 2008. FAD24, a regulator of adipogenesis, is required for the regulation of DNA replication in cell proliferation. *Biol. Pharm. Bull.* 31: 1092-1095.
- Culurgioni, S., et al. 2012. Crystal structure of inhibitor of growth 4 (ING4) dimerization domain reveals functional organization of ING family of chromatin-binding proteins. *J. Biol. Chem.* 287: 10876-10884.

## RESEARCH USE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.



Try **HBO1 (G-2): sc-398346**, our highly recommended monoclonal alternative to HBO1 (N-18).