**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 tests. 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.

**REFERENCES**


**CHROMOSOMAL LOCATION**

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

**SOURCE**

HBO1 (G-2) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 20-47 near the N-terminus of HBO1 of human origin.

**PRODUCT**

Each vial contains 200 μg IgGκ, kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

HBO1 (G-2) is available conjugated to agarose (sc-398346 AC), 500 μg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-398346 HRP), 200 μg/ml, for WB, IHCP) and ELISA; to either phycoerythrin (sc-398346 PE), fluorescein (sc-398346 FITC), Alexa Fluor® 488 (sc-398346 AF488), Alexa Fluor® 546 (sc-398346 AF546), Alexa Fluor® 594 (sc-398346 AF594) or Alexa Fluor® 647 (sc-398346 AF647), 200 μg/ml, for WB (RGB), IF, IHCP and FCM; and to either Alexa Fluor® 680 (sc-398346 AF680) or Alexa Fluor® 790 (sc-398346 AF790), 200 μg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-398346 P, (100 μg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

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**APPLICATIONS**

HBO1 (G-2) is recommended for detection of HBO1 of mouse, rat and human origin by Western blotting (starting dilution 1:100, 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 1:30-1:300).

HBO1 (G-2) is also recommended for detection of HBO1 in additional species, including equine, canine, bovine and porcine. 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 nuclear extract: sc-2120, HBO1 (h): 293T Lysate: sc-35597.

**DATA**

**SELECT PRODUCT CITATIONS**


**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.

**PROTOCOLS**

See our web site at www.scbt.com for detailed protocols and support products.