SANTA CRUZ BIOTECHNOLOGY, INC.

GIOT-2 (H-1): sc-398496

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Zinc-finger proteins contain DNA-binding domains and have a wide variety of functions, most of which encompass some form of transcriptional activation or repression. The majority of zinc-finger proteins contain a Krüppel-type DNA binding domain and a KRAB domain, which is thought to interact with KAP1, thereby recruiting histone modifying proteins. GIOT-2 (gonadotropin-inducible transcription repressor 2), also known as ZNF44 or KOX7, is a 589 amino acid member of the Krüppel C_2H_2-type zinc-finger family of proteins. A nuclear protein, GIOT-2 is thought to be involved in transcriptional regulation, possibly repressing Gonadotropin gene expression. GIOT-2 contains 16 C_2H_2-type zinc fingers and one KRAB domain.

REFERENCES

1. Bray, P., et al. 1991. Characterization and mapping of human genes encoding zinc finger proteins. Proc. Natl. Acad. Sci. USA 88: 9563-9567.
2. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 194542. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
3. Li, Z., et al. 2005. Discrimination of vanadium from zinc using gene profiling in human bronchial epithelial cells. Environ. Health Perspect. 113: 1747-1754.
4. Narayanan, B.A. 2006. Chemopreventive agents alters global gene expression pattern: predicting their mode of action and targets. Curr. Cancer Drug Targets 6: 711-727.
5. Olsen, J.V., et al. 2006. Global, *in vivo,* and site-specific phosphorylation dynamics in signaling networks. Cell 127: 635-648.

CHROMOSOMAL LOCATION

Genetic locus: ZNF44 (human) mapping to 19p13.2.

SOURCE

GIOT-2 (H-1) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 20-45 near the N-terminus of GIOT-2 of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

GIOT-2 (H-1) is available conjugated to agarose (sc-398496 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-398496 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-398496 PE), fluorescein (sc-398496 FITC), Alexa Fluor® 488 (sc-398496 AF488), Alexa Fluor® 546 (sc-398496 AF546), Alexa Fluor® 594 (sc-398496 AF594) or Alexa Fluor® 647 (sc-398496 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-398496 AF680) or Alexa Fluor® 790 (sc-398496 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-398496 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

GIOT-2 (H-1) is recommended for detection of GIOT-2 of 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for GIOT-2 siRNA (h): sc-97643, GIOT-2 shRNA Plasmid (h): sc-97643-SH and GIOT-2 shRNA (h) Lentiviral Particles: sc-97643-V.

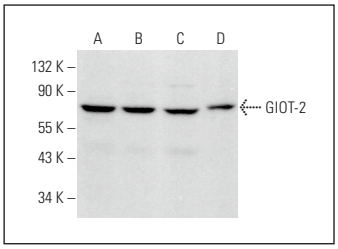
Molecular Weight of GIOT-2 isoforms 1/2/3: 77/68/73 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227, human liver extract: sc-363766 or HL-60 whole cell lysate: sc-2209.

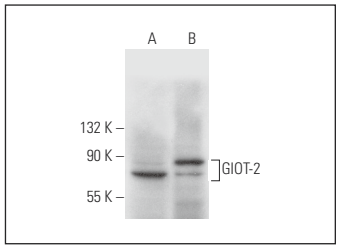
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



GIOT-2 (H-1): sc-398496. Western blot analysis of GIOT-2 expression in Hep G2 (**A**), HL-60 (**B**), K-562 (**C**) and MOLT-4 (**D**) whole cell lysates.



GIOT-2 (H-1): sc-398496. Western blot analysis of GIOT-2 expression in Hep G2 whole cell lysate (**A**) and human liver tissue extract (**B**).

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.