

GIOT-1 (O-25): sc-133620

BACKGROUND

GIOT-1 (gonadotropin-inducible transcription repressor 1), also known as ZNF 461 (zinc finger protein 461) is a 563 amino acid protein belonging to the Krüppel C₂H₂-type zinc-finger protein family. Localized to the nucleus, GIOT-1 is widely expressed in tissues, with highest levels in liver, kidney, small intestine, pancreas and thymus. GIOT-1 contains 12 C₂H₂-type zinc fingers and one KRAB domain. Because the KRAB domain functions as a transcriptional repressor when attached to the template DNA, GIOT-1 is thought to be involved in transcriptional regulation. The gene encoding GIOT-1 is localized to chromosome 19q13 and two isoforms of GIOT-1 exist as a result of alternative splicing events.

REFERENCES

- Mizutani, T., et al. 2001. Cloning and characterization of gonadotropin-inducible ovarian transcription factors (GIOT-1 and -2) that are novel members of the (Cys)₂-(His)₂-type zinc finger protein family. *Mol. Endocrinol.* 15: 1693-1705.
- Dai, J., et al. 2003. Characterization of two novel KRAB-domain-containing zinc finger genes, ZNF460 and ZNF461, on human chromosome 19q13.1 → q13.4. *Cytogenet. Genome Res.* 103: 74-78.
- Yazawa, T., et al. 2003. Involvement of cyclic adenosine 5'-monophosphate response element-binding protein, steroidogenic factor 1, and Dax-1 in the regulation of gonadotropin-inducible ovarian transcription factor 1 gene expression by follicle-stimulating hormone in ovarian granulosa cells. *Endocrinology* 144: 1920-1930.
- Urrutia, R. 2003. KRAB-containing zinc-finger repressor proteins. *Genome Biol.* 4: 231.
- Online Mendelian Inheritance in Man, OMIM™. 2004. Johns Hopkins University, Baltimore, MD. MIM Number: 608640. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
- Song, K.H., et al. 2006. Orphan nuclear receptor Nur77 induces zinc finger protein GIOT-1 gene expression, and GIOT-1 acts as a novel corepressor of orphan nuclear receptor SF-1 via recruitment of HDAC2. *J. Biol. Chem.* 281: 15605-15614.

CHROMOSOMAL LOCATION

Genetic locus: ZNF461 (human) mapping to 19q13.12.

SOURCE

GIOT-1 (O-25) is a Protein A purified rabbit polyclonal antibody raised against synthetic GIOT-1 peptide of human origin.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml PBS with < 0.1% sodium azide, 0.1% gelatin and < 0.02% sucrose.

STORAGE

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

APPLICATIONS

GIOT-1 (O-25) is recommended for detection of GIOT-1 of 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).

Suitable for use as control antibody for GIOT-1 siRNA (h): sc-75130, GIOT-1 shRNA Plasmid (h): sc-75130-SH and GIOT-1 shRNA (h) Lentiviral Particles: sc-75130-V.

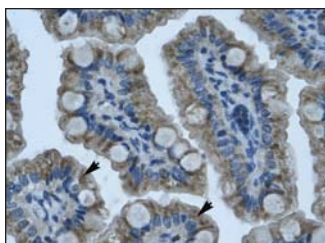
Molecular Weight of GIOT-1: 66 kDa.

Positive Controls: human intestine tissue or NTERA-2 cl.D1 whole cell lysate.

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. 4) Immunohistochemistry: use ImmunoCruz™: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

DATA



GIOT-1 (O-25): sc-133620. Immunoperoxidase staining of formalin-fixed, paraffin-embedded human intestine tissue showing nuclear localization.

RESEARCH USE

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

PROTOCOLS

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