# GNL2 (m): 293T Lysate: sc-125397



The Power to Question

## **BACKGROUND**

GNL2 (autoantigen NGP-1, NOG2) is a nucleolar guanasine-triphosphate binding protein that is ubiquitously expressed at low levels in almost all tissues. GNL2 is involved in the crucial process of trafficking proteins out of the nucleus. Specifically, it is a GTPase that interacts with the 60s preribosomal subunit in the nucleus and facilitates export of the subunit into the cytoplasm. GTPases are responsible for the hydrolysis of GTP by way of a protein region dubbed the G domain. GTPases are often involved in the translocating proteins through membranes gleaning energy for the activity by hydrolizing GTP. GNL2 shares G domain homology and some functionality with nucleostemin (GNL3), another nuclear GTPase. Highest expression of GNL2 is found in testis.

## **REFERENCES**

- Racevskis, J., Dill, A., Stockert, R. and Fineberg, S.A. 1996. Cloning of a novel nucleolar guanosine 5'-triphosphate binding protein autoantigen from a breast tumor. Cell Growth Differ. 7: 271-280.
- Stage-Zimmermann, T., Schmidt, U. and Silver, P.A. 2000. Factors affecting nuclear export of the 60S ribosomal subunit *in vivo*. Mol. Biol. Cell 11: 3777-3789.
- Saveanu, C., Bienvenu, D., Namane, A., Gleizes, P.E., Gas, N., Jacquier, A. and Fromont-Racine, M. 2001. Nog2p, a putative GTPase associated with pre-60S subunits and required for late 60S maturation steps. EMBO J. 20: 6475-6484.
- Bassler, J., Grandi, P., Gadal, O., Lessmann, T., Petfalski, E., Tollervey, D., Lechner, J. and Hurt, E. 2001. Identification of a 60S preribosomal particle that is closely linked to nuclear export. Mol. Cell 8: 517-529.
- De Angelis, P.M., Svendsrud, D.H., Kravik, K.L. and Stokke, T. 2006. Cellular response to 5-fluorouracil (5-FU) in 5-FU-resistant colon cancer cell lines during treatment and recovery. Mol. Cancer 5: 20.
- Du, X., Rao, M.R., Chen, X.Q., Wu, W., Mahalingam, S. and Balasundaram,
  D. 2006. The homologous putative GTPases Grn1p from fission yeast and the human GNL3L are required for growth and play a role in processing of nucleolar pre-rRNA. Mol. Biol. Cell 17: 460-474.
- Rao, M.R., Kumari, G., Balasundaram, D., Sankaranarayanan, R. and Mahalingam, S. 2006. A novel lysine-rich domain and GTP binding motifs regulate the nucleolar retention of human guanine nucleotide binding protein, GNL3L. J. Mol. Biol. 364: 637-654.
- Yasumoto, H., Meng, L., Lin, T., Zhu, Q. and Tsai, R.Y. 2007. GNL3L inhibits activity of estrogen-related receptor γ by competing for coactivator binding. J. Cell Sci. 120: 2532-2543.

# **STORAGE**

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

## **PROTOCOLS**

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

#### **CHROMOSOMAL LOCATION**

Genetic locus: Gnl2 (mouse) mapping to 4 D2.2.

#### **PRODUCT**

GNL2 (m): 293T Lysate represents a lysate of mouse GNL2 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

#### **APPLICATIONS**

GNL2 (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive GNL2 antibodies. Recommended use: 10-20  $\mu$ l per lane.

Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

## **RESEARCH USE**

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

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