



GC-1 (h): 293T Lysate: sc-372868

BACKGROUND

GC-1, also known as OLFM4 (olfactomedin-4) or GW112, is a 510 amino acid protein that is secreted into extracellular space and contains one olfactomedin-like domain. Expressed at high levels in prostate, colon and small intestine, with lower levels in bone marrow and stomach tissue, GC-1 exists as a homomultimer that functions as an anti-apoptotic factor that promotes cell growth and proliferation. Specifically functioning to assist in the S to G₂/M phase transition and to facilitate cell adhesion, GC-1 interacts with Grim19 and plays an important role in the pathogenesis of pancreatic, stomach and colon cancer. The gene encoding GC-1 maps to human chromosome 13, which houses over 400 genes, such as BRCA2 and RB1, and comprises nearly 4% of the human genome.

REFERENCES

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2. Zhang, J., et al. 2002. Identification and characterization of a novel member of olfactomedin-related protein family, hGC-1, expressed during myeloid lineage development. *Gene* 283: 83-93.
3. Zhang, X., et al. 2004. GW112, a novel antiapoptotic protein that promotes tumor growth. *Cancer Res.* 64: 2474-2481.
4. Liu, W., et al. 2006. The glycoprotein hGC-1 binds to cadherin and lectins. *Exp. Cell Res.* 312: 1785-1797.
5. Kobayashi, D., et al. 2007. Olfactomedin 4 promotes S-phase transition in proliferation of pancreatic cancer cells. *Cancer Sci.* 98: 334-340.
6. Liu, W., et al. 2007. Expression of hGC-1 is correlated with differentiation of gastric carcinoma. *Histopathology* 51: 157-165.
7. Chin, K.L., et al. 2008. The regulation of OLFM4 expression in myeloid precursor cells relies on NF- κ B transcription factor. *Br. J. Haematol.* 143: 421-432.
8. Liu, W., et al. 2008. Reduced hGC-1 protein expression is associated with malignant progression of colon carcinoma. *Clin. Cancer Res.* 14: 1041-1049.

CHROMOSOMAL LOCATION

Genetic locus: OLFM4 (human) mapping to 13q14.3.

PRODUCT

GC-1 (h): 293T Lysate represents a lysate of human GC-1 transfected 293T cells and is provided as 100 μ g protein in 200 μ l SDS-PAGE buffer.

APPLICATIONS

GC-1 (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive GC-1 antibodies. Recommended use: 10-20 μ l per lane.

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

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.

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.