

OKL38 (G-16): sc-82002

BACKGROUND

OKL38 (ovary, kidney and liver protein 38), also known as OSGIN1 (oxidative stress-induced growth inhibitor 1) or BDGI, is a 560 amino acid protein that is expressed ubiquitously, with highest levels in kidney, liver and ovary tissue. Existing as three alternatively spliced isoforms, OKL38 functions to regulate the differentiation and proliferation of cells, specifically by regulating apoptosis and cell death. Loss of OKL38 activity leads to a disruption in the balance between cell growth, cell proliferation and cell death, and is associated with rapid tumor growth and metastasis. The gene encoding OKL38 maps to human chromosome 16, which houses over 900 genes and comprises nearly 3% of the human genome.

REFERENCES

1. Huynh, H., et al. 2001. Cloning and characterization of a novel pregnancy-induced growth inhibitor in mammary gland. *Endocrinology* 142: 3607-3615.
2. Riou, P., et al. 2002. Investigation in liver tissues and cell lines of the transcription of 13 genes mapping to the 16q24 region that are frequently deleted in hepatocellular carcinoma. *Clin. Cancer Res.* 8: 3178-3186.
3. Online Mendelian Inheritance in Man, OMIM[™]. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 607975. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
4. Ong, C.K., et al. 2004. Structural characterization of three novel rat OKL38 transcripts, their tissue distributions, and their regulation by human chorionic Gonadotropin. *Endocrinology* 145: 4763-4774.
5. Ong, C.K., et al. 2004. Genomic structure of human OKL38 gene and its differential expression in kidney carcinogenesis. *J. Biol. Chem.* 279: 743-754.
6. Wang, T., et al. 2005. Bone marrow stromal cell-derived growth inhibitor inhibits growth and migration of breast cancer cells via induction of cell cycle arrest and apoptosis. *J. Biol. Chem.* 280: 4374-4382.
7. Li, R., et al. 2007. OKL38 is an oxidative stress response gene stimulated by oxidized phospholipids. *J. Lipid Res.* 48: 709-715.

CHROMOSOMAL LOCATION

Genetic locus: OSGIN1 (human) mapping to 16q23.3; Osgin1 (mouse) mapping to 8 E1.

SOURCE

OKL38 (G-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of OKL38 of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-82002 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

RESEARCH USE

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

APPLICATIONS

OKL38 (G-16) is recommended for detection of OKL38 of mouse, rat and 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

OKL38 (G-16) is also recommended for detection of OKL38 in additional species, including equine, canine and bovine.

Suitable for use as control antibody for OKL38 siRNA (h): sc-75992, OKL38 siRNA (m): sc-75993, OKL38 shRNA Plasmid (h): sc-75992-SH, OKL38 shRNA Plasmid (m): sc-75993-SH, OKL38 shRNA (h) Lentiviral Particles: sc-75992-V and OKL38 shRNA (m) Lentiviral Particles: sc-75993-V.

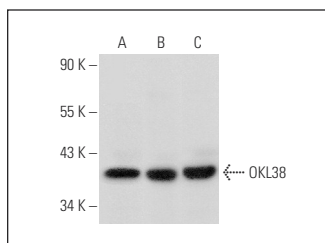
Molecular Weight of OKL38: 35 kDa.

Positive Controls: mouse liver extract: sc-2256, human liver extract: sc-363766 or rat kidney extract: sc-2394.

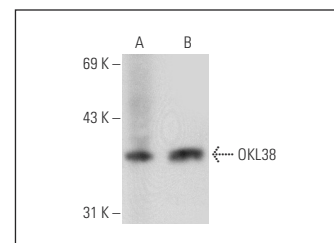
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker[™] compatible donkey anti-goat IgG-HRP: sc-2033 (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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz[™] Mounting Medium: sc-24941.

DATA



OKL38 (G-16): sc-82002. Western blot analysis of OKL38 expression in mouse liver (A), human kidney (B) and human liver (C) tissue extracts.



OKL38 (G-16): sc-82002. Western blot analysis of OKL38 expression in mouse liver (A) and rat kidney (B) tissue extracts.

STORAGE

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

PROTOCOLS

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