

URG4 (E-2): sc-376934

BACKGROUND

URG4 (up-regulated gene 4), also known as URGCP (upregulator of cell proliferation) or HBV X protein up-regulated gene 4 protein, is a 931 amino acid nuclear and cytoplasmic protein that is strongly expressed in Hepatitis B virus-infected liver, hepatocellular carcinoma cells, well-differentiated gastric cancer tissues and various gastric cancer cell lines. URG4 is suggested to be involved in cell cycle progression through the regulation of cyclin D1 expression. URG4 plays a critical role in development of gastric cancer and promotes hepatocellular growth and survival. URG4 exists as three alternatively spliced isoforms and is considered a potential therapeutic target for gastric cancer. The novel gene encoding URG4 is located on human chromosome 7, which houses over 1,000 genes, comprises nearly 5% of the human genome and has been linked to Osteogenesis imperfecta, Pendred syndrome, Lissencephaly, Citrullinemia and Shwachman-Diamond syndrome.

REFERENCES

1. Tufan, N.L., et al. 2002. Hepatitis Bx antigen stimulates expression of a novel cellular gene, URG4, that promotes hepatocellular growth and survival. *Neoplasia* 4: 355-368.
2. Song, J., et al. 2006. Enhanced cell survival of gastric cancer cells by a novel gene URG4. *Neoplasia* 8: 995-1002.
3. Online Mendelian Inheritance in Man, OMIM™. 2006. Johns Hopkins University, Baltimore, MD. MIM Number: 610337. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
4. Tong, G.D., et al. 2007. Preneoplastic markers of hepatitis B virus-associated hepatocellular carcinoma and their significance in clinical settings. *Zhonghua Gan Zang Bing Za Zhi* 15: 828-832.

CHROMOSOMAL LOCATION

Genetic locus: URGCP (human) mapping to 7p13.

SOURCE

URG4 (E-2) is a mouse monoclonal antibody raised against amino acids 406-672 mapping within an internal region of URG4 of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

URG4 (E-2) is available conjugated to agarose (sc-376934 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-376934 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-376934 PE), fluorescein (sc-376934 FITC), Alexa Fluor® 488 (sc-376934 AF488), Alexa Fluor® 546 (sc-376934 AF546), Alexa Fluor® 594 (sc-376934 AF594) or Alexa Fluor® 647 (sc-376934 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-376934 AF680) or Alexa Fluor® 790 (sc-376934 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

STORAGE

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

APPLICATIONS

URG4 (E-2) is recommended for detection of URG4 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 URG4 siRNA (h): sc-89691, URG4 shRNA Plasmid (h): sc-89691-SH and URG4 shRNA (h) Lentiviral Particles: sc-89691-V.

Molecular Weight of URG4: 104 kDa.

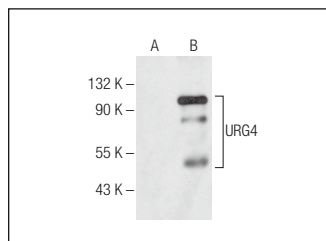
Positive Controls: URG4 (h): 293T Lysate: sc-173380.

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



URG4 (E-2): sc-376934. Western blot analysis of URG4 expression in non-transfected: sc-117752 (A) and human URG4 transfected: sc-173380 (B) 293T whole cell lysates.

SELECT PRODUCT CITATIONS

1. Yu, G., et al. 2017. miR-519 suppresses nasopharyngeal carcinoma cell proliferation by targeting oncogene URG4/URGCP. *Life Sci.* 175: 47-51.
2. Yu, D., et al. 2020. LINC00514 drives osteosarcoma progression through sponging microRNA-708 and consequently increases URGCP expression. *Aging* 12: 6793-6807.

RESEARCH USE

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

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