

URB (Y-13): sc-99709

BACKGROUND

The URB protein, also designated coiled-coil domain-containing protein 80 (CCDC80) or Down-regulated by oncogenes protein 1 (DRO1), is secreted from adipocytes and is thought to play a role in obesity. Loss of URB function inhibits adipocyte differentiation, down-regulates Wnt/ β -catenin signaling and induces activation of C/EBP α and peroxisome proliferator-activated receptor γ (PPAR γ). URB is also expressed in dermal papilla and dermal fibroblasts as well as heart, thymus, placenta, pancreas, colon, epithelium, spleen and osteoblasts. Reduced expression of URB is observed in colon, colorectal and pancreatic cancer cell lines, suggesting an important role for URB in the pathogenesis of neoplasms. Three isoforms of URB exist as a result of alternative splicing events.

REFERENCES

1. Liu, Y., et al. 2004. URB expression in human bone marrow stromal cells and during mouse development. *Biochem. Biophys. Res. Commun.* 322: 497-507.
2. Bommer, G.T., et al. 2005. DRO1, a gene down-regulated by oncogenes, mediates growth inhibition in colon and pancreatic cancer cells. *J. Biol. Chem.* 280: 7962-7975.
3. Cha, S.Y., et al. 2005. URB expression in human dermal papilla cells. *J. Dermatol. Sci.* 39: 128-130.
4. Okada, T., et al. 2008. URB is abundantly expressed in adipose tissue and dysregulated in obesity. *Biochem. Biophys. Res. Commun.* 367: 370-376.
5. Tremblay, F., et al. 2009. Bidirectional modulation of adipogenesis by the secreted protein Ccdc80/DRO1/URB. *J. Biol. Chem.* 284: 8136-8147.

CHROMOSOMAL LOCATION

Genetic locus: CCDC80 (human) mapping to 3q13.2; Ccdc80 (mouse) mapping to 16 B5.

SOURCE

URB (Y-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of URB of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-99709 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

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.

APPLICATIONS

URB (Y-13) is recommended for detection of URB of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

URB (Y-13) is also recommended for detection of URB in additional species, including equine and avian.

Suitable for use as control antibody for URB siRNA (h): sc-78062, URB siRNA (m): sc-154933, URB shRNA Plasmid (h): sc-78062-SH, URB shRNA Plasmid (m): sc-154933-SH, URB shRNA (h) Lentiviral Particles: sc-78062-V and URB shRNA (m) Lentiviral Particles: sc-154933-V.

Molecular Weight of URB: 108 kDa.

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) 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.

RESEARCH USE

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