

TUG (2C8): sc-101260

BACKGROUND

Glut4 is a twelve pass transmembrane protein (12TM) whose carboxy-terminus may dictate its cellular localization. Aberrant Glut4 expression has been suggested to contribute to such maladies as obesity and diabetes. Glut4 null mice have shown that while functional Glut4 protein is not required for maintaining normal glucose levels, it is necessary for sustained growth, normal cellular glucose, fat metabolism and prolonged longevity. TUG (ASPL in humans) regulates the trafficking of glucose via Glut4. Full-length TUG forms a complex with Glut4 and in 3T3-L1 adipocytes and this complex is present in unstimulated cells and is disassembled by insulin. TUG acts by trapping endocytosed Glut4 and tethering it intracellularly. Insulin mobilizes this pool of retained Glut4 by releasing the tether.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: ASPSCR1 (human) mapping to 17q25.3.

SOURCE

TUG (2C8) is a mouse monoclonal antibody raised against recombinant TUG of human origin.

PRODUCT

Each vial contains 100 µg IgG₁ in 1.0 ml PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

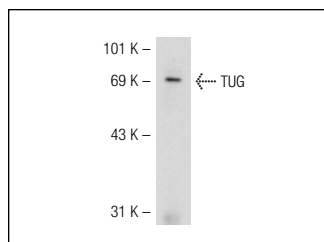
TUG (2C8) is recommended for detection of TUG of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (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 TUG siRNA (h): sc-72020, TUG shRNA Plasmid (h): sc-72020-SH and TUG shRNA (h) Lentiviral Particles: sc-72020-V.

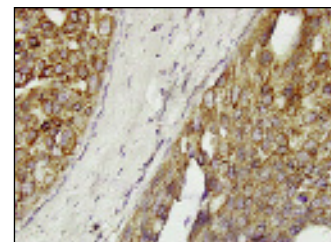
Molecular Weight of TUG: 60 kDa.

Positive Controls: HeLa nuclear extract: sc-2120, 293T whole cell lysate or human breast cancer tissue.

DATA



TUG (2C8): sc-101260. Western blot analysis of TUG expression in 293T whole cell lysate.



TUG (2C8): sc-101260. Immunoperoxidase staining of formalin-fixed, paraffin-embedded human breast cancer tissue showing membrane and cytoplasmic localization.

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. 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 or our catalog for detailed protocols and support products.