

Glut11 (G-20): sc-87755

BACKGROUND

Glut11 (glucose transporter type 11) is also referred to as SLC2A11 (solute carrier family 2 (facilitated glucose transporter), member 11) or GLUT10 and is a 469 amino acid protein that is expressed as 3 isoforms. Glut11 is primarily found in heart and skeletal muscle at the transcription level. Glut11 belongs to the glucose transporter subfamily of sugar transporting plasma membrane proteins that facilitate the transport of hexose sugars across the membrane. Glut11 is a multi-pass membrane protein that is capable of transporting glucose but may also bind fructose with higher affinity than glucose, making fructose an inhibitor of glucose transportation. The transport of hexose sugars across the membrane is thought to be important for normal joint growth and repair, suggesting that glut proteins play an essential role in proper joint development.

REFERENCES

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5. Gaster, M., et al. 2004. Glut11, but not Glut8 or Glut12, is expressed in human skeletal muscle in a fibre type-specific pattern. *Pflugers Arch.* 448: 105-113.
6. Goggs, R., et al. 2005. Nutraceutical therapies for degenerative joint diseases: a critical review. *Crit. Rev. Food Sci. Nutr.* 45: 145-164.
7. Scheepers, A., et al. 2005. Characterization of the human SLC2A11 (Glut11) gene: alternative promoter usage, function, expression, and subcellular distribution of three isoforms, and lack of mouse orthologue. *Mol. Membr. Biol.* 22: 339-351.
8. Manolescu, A.R., et al. 2007. A highly conserved hydrophobic motif in the exofacial vestibule of fructose transporting SLC2A proteins acts as a critical determinant of their substrate selectivity. *Mol. Membr. Biol.* 24: 455-463.

CHROMOSOMAL LOCATION

Genetic locus: SLC2A11 (human) mapping to 22q11.23.

SOURCE

Glut11 (G-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Glut11 of human origin.

RESEARCH USE

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

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-87755 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Glut11 (G-20) is recommended for detection of Glut11 of 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); non cross-reactive with Glut-2.

Glut11 (G-20) is also recommended for detection of Glut11 in additional species, including equine and bovine.

Suitable for use as control antibody for Glut11 siRNA (h): sc-75148, Glut11 shRNA Plasmid (h): sc-75148-SH and Glut11 shRNA (h) Lentiviral Particles: sc-75148-V.

Molecular Weight of Glut11: 54 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.

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.