SANTA CRUZ BIOTECHNOLOGY, INC.

SLC2A4RG (F-22): sc-134007

BACKGROUND

SLC2A4RG (SLC2A4 regulator), also known as Huntington disease gene regulatory region-binding protein 1 and Glut4 enhancer factor, is a 387 amino acid transcription factor that is involved in Glut4 and HD gene transactivation. In cooperation with MEF-2, SLC2A4RG binds to domain I of the Glut4 promoter to regulate transcription of Glut4. Interestingly, after a single bout of exercise, there is an increase in DNA binding activities of both SLC2A4RG and MEF-2, which leads to an increase in transcription of Glut4. This is significant because overexpression of Glut4 in skeletal muscle has shown to improve glucose homeostasis and enhance Insulin action. Also, by recognizing the 5'-GCCGGCG-3' DNA sequence motif of the Huntington's disease (HD) promoter, SLC2A4RG regulates transcription of the HD gene. Ubiquitously expressed with highest expression in skeletal muscle, liver, kidney, heart and pancreas, SLC2A4RG shuttles between the cytoplasm and nucleus and contains a C_2H_2-type zinc finger that is involved in DNA binding. There are two isoforms of SLCA4RG that are produced as a result of alternative splicing.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: SLC2A4RG (human) mapping to 20q13.33.

RESEARCH USE

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

SOURCE

SLC2A4RG (F-22) is an affinity purified rabbit polyclonal antibody raised against synthetic SLC2A4RG peptide of human origin.

PRODUCT

Each vial contains 50 µg IgG in 500 µl PBS with < 0.1% sodium azide, 0.1% gelatin and < 0.02% sucrose.

APPLICATIONS

SLC2A4RG (F-22) is recommended for detection of SLC2A4RG 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)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for SLC2A4RG siRNA (h): sc-76506, SLC2A4RG shRNA Plasmid (h): sc-76506-SH and SLC2A4RG shRNA (h) Lentiviral Particles: sc-76506-V.

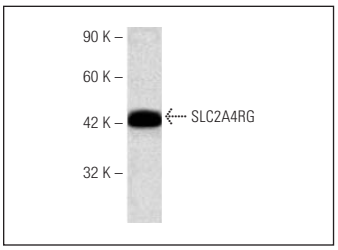
Molecular Weight of SLC2A4RG isoforms: 50/70 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204 or HeLa whole cell lysate: sc-2200.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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).

DATA



SLC2A4RG (F-22): sc-134007. Western blot analysis of SLC2A4RG expression in Jurkat whole cell lysate.

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.