

# SLC41A1 (W-14): sc-244178

## BACKGROUND

SLC41A1 (solute carrier family 41 member 1), also known as MgtE, is a 513 amino acid multi-pass membrane protein that belongs to the SLC41A transporter family that includes SLC41A3 and SLC41A2. Localizing to the cell membrane, SLC41A1 contains ten transmembrane domains. Both SLC41A1 and SLC41A2 are believed to function as magnesium transporters and are essential for maintaining magnesium homeostasis within the cell. SLC41A3 is thought to function as a plasma-membrane cation transporter, playing a vital role in metabolic and biochemical processes. SLC41A1 is expressed in heart and testis, skeletal muscles, prostate, adrenal gland and thyroid, and is weakly expressed in hematopoietic tissues, bones marrow, lymph node, thymus and spleen.

## REFERENCES

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## CHROMOSOMAL LOCATION

Genetic locus: SLC41A1 (human) mapping to 1q32.1; Slc41a1 (mouse) mapping to 1 E4.

## SOURCE

SLC41A1 (W-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of SLC41A1 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-244178 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

SLC41A1 (W-14) is recommended for detection of SLC41A1 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); non cross-reactive with SLC41A2 or SLC41A3.

SLC41A1 (W-14) is also recommended for detection of SLC41A1 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for SLC41A1 siRNA (h): sc-88707, SLC41A1 siRNA (m): sc-153559, SLC41A1 shRNA Plasmid (h): sc-88707-SH, SLC41A1 shRNA Plasmid (m): sc-153559-SH, SLC41A1 shRNA (h) Lentiviral Particles: sc-88707-V and SLC41A1 shRNA (m) Lentiviral Particles: sc-153559-V.

Molecular Weight of SLC41A1: 56 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](http://www.scbt.com) or our catalog for detailed protocols and support products.