



## CTL5 (G-19): sc-68057

### BACKGROUND

Choline is an essential nutrient that is required for the synthesis of both acetylcholine, a neurotransmitter found in cholinergic nerve terminals, and phosphatidylcholine, a key component of cell membranes. Choline deficiencies are associated with defects in cell growth and have been implicated in disorders such as Alzheimer's and Parkinson's disease. The choline transporter-like protein family (CTL) are solute carriers that transport choline, a compound which is not able to permeate cells, across the cell membrane. CTL5, also known as SLC44A5 (solute carrier family 44, member 5), is a 719 amino acid multi-pass membrane protein that is involved in choline transport.

### REFERENCES

1. Zufferey, R., Santiago, T.C., Brachet, V. and Ben Mamoun, C. 2004. Reexamining the role of choline transporter-like (Ct1p) proteins in choline transport. *Neurochem. Res.* 29: 461-467.
2. Traiffort, E., Ruat, M., O'Regan, S. and Meunier, F.M. 2005. Molecular characterization of the family of choline transporter-like proteins and their splice variants. *J. Neurochem.* 92: 1116-1125.
3. Michel, V., Yuan, Z., Ramsuibir, S. and Bakovic, M. 2006. Choline transport for phospholipid synthesis. *Exp. Biol. Med.* 231: 490-504.
4. Wang, T., Li, J., Chen, F., Zhao, Y., He, X., Wan, D. and Gu, J. 2007. Choline transporters in human lung adenocarcinoma: expression and functional implications. *Acta Biochim. Biophys. Sin.* 39: 668-674.
5. Tomi, M., Arai, K., Tachikawa, M. and Hosoya, K. 2007. Na<sup>+</sup>-independent choline transport in rat retinal capillary endothelial cells. *Neurochem. Res.* 32: 1833-1842.

### CHROMOSOMAL LOCATION

Genetic locus: Slc44a5 (mouse) mapping to 3 H3-H4.

### SOURCE

CTL5 (G-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an extracellular domain of CTL5 of mouse origin.

### 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-68057 P, (100 µg 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](http://www.scbt.com) or our catalog for detailed protocols and support products.

### APPLICATIONS

CTL5 (G-19) is recommended for detection of CTL5 of mouse and rat 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).

Suitable for use as control antibody for CTL5 siRNA (m): sc-62170.

Molecular Weight of CTL5: 82 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.