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Product Information

Monoclonal Anti-SLC5A7, clone 62-2E8
produced in mouse, purified immunoglobulin

Catalog Number **SAB4200601**

Product Description

Monoclonal Anti-SLC5A7 (mouse IgG1 isotype) is derived from the hybridoma 62-2E8 produced by the fusion of mouse myeloma cells and splenocytes from BALB/c mice immunized with human SLC5A7 (GeneID: 8570) recombinant fusion protein.[1] The isotype is determined by ELISA using Mouse Monoclonal Antibody Isotyping Reagents, Catalog Number ISO2.

Monoclonal Anti- SLC5A7 recognizes human, bovine, monkey, chicken, dog and mouse SLC5A7. The product may be used in several immunochemical techniques including immunoblotting (~ 72 kDa) and immunocytochemistry.

Choline is an essential nutrient for all cells as it plays a role in the synthesis of the membrane phospholipid components, acts as a methyl-group donor in methionine metabolism as well as in the synthesis of the neurotransmitter acetylcholine, a neurotransmitter of the central and peripheral nervous system that regulates a variety of autonomic, cognitive, and motor functions.[2] Maintenance of acetylcholine synthesis depends on the activity of the high-affinity choline transporter (CHT1), also known as SLC5A7, which is responsible for the reuptake of choline, the rate-limiting step in acetylcholine synthesis, from the synaptic cleft into presynaptic neurons.[3] SLC5A7 protein is mainly found in intracellular organelles, such as endosomal compartments and synaptic vesicles. A significant dysfunction of cholinergic neurotransmission is observed in a number of neurodegenerative disorders such as Alzheimer's and Parkinson's disease.[1,4]

Reagent

Supplied as a solution in 0.01 M phosphate buffered saline, pH 7.4, containing 15 mM sodium azide as a preservative.

Antibody Concentration: ~ 1.0 mg/mL

Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

Storage/Stability

For extended storage, freeze at –20 ^{0}C in working aliquots. Repeated freezing and thawing, or storage in "frost-free" freezers, is not recommended. If slight turbidity occurs upon prolonged storage, clarify the solution by centrifugation before use. Working dilution samples should be discarded if not used within 12 hours.

Product Profile

Immunoblotting: a working concentration of 2-4 μg/mL is recommended using SK-Mel-28 total cell extracts.

Immunofluorescence: a working concentration of 5-10 μg/mL is recommended using HEK-293T cells.

Note: In order to obtain the best results using various techniques and preparations, we recommend determining optimal working dilutions by titration. Using a sensitive film is also recommended.

References

1. Ferguson, S.M., et al., *J. Neurosci.,* **23**, 9697-9709 (2003).
2. Michel, V., et al., *Exp. Biol. Med.,* **231**, 490-504 (2006).
3. Okuda, T., et al., *Nat. Neurosci.,* **3**, 120-125 (2000).
4. Ribeiro, F.M., et al., *J. Neurochem.,* **97**, 1-12 (2006).

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