

KCNT2 (N-12): sc-161772



The Power to Question

BACKGROUND

Voltage-gated K⁺ channels in the plasma membrane are important regulators of electrical signaling, controlling the repolarization and the frequency of action potentials in neurons, muscles and other excitable cells. KCNT2 (potassium channel subfamily T member 2), also known as sequence like an intermediate conductance potassium channel subunit (SLICK) and sodium and chloride-activated ATP-sensitive potassium channel Slo2.1, is a 1,135 amino acid multi-pass transmembrane protein belonging to the potassium channel family (calcium-activated subfamily) of proteins. KCNT2 produces rapidly activating outward rectifier potassium currents in response to high intracellular sodium and chloride levels. Its channel activity is inhibited by ATP, inhalation anesthetics, such as isoflurane, and upon stimulation of G-protein coupled receptors, such as mAChR M1 and GluR-1. There are four isoforms of KCNT2 that are produced as a result of alternative splicing events.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: KCNT2 (human) mapping to 1q31.3; Kcnt2 (mouse) mapping to 1 F.

SOURCE

KCNT2 (N-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an N-terminal extracellular domain of KCNT2 of human origin.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-161772 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

KCNT2 (N-12) is recommended for detection of KCNT2 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], 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 KCNT1.

KCNT2 (N-12) is also recommended for detection of KCNT2 in additional species, including equine and canine.

Suitable for use as control antibody for KCNT2 siRNA (h): sc-88420, KCNT2 siRNA (m): sc-146374, KCNT2 shRNA Plasmid (h): sc-88420-SH, KCNT2 shRNA Plasmid (m): sc-146374-SH, KCNT2 shRNA (h) Lentiviral Particles: sc-88420-V and KCNT2 shRNA (m) Lentiviral Particles: sc-146374-V.

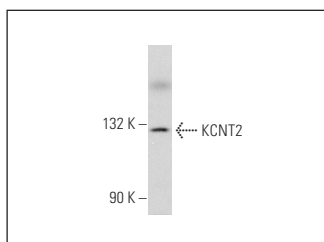
Molecular Weight of KCNT2: 131 kDa.

Positive Controls: mouse brain extract: sc-2253.

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

DATA



KCNT2 (N-12): sc-161772. Western blot analysis of KCNT2 expression in mouse brain tissue extract.

RESEARCH USE

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