10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

KCNK9 (TASK-3) Polyclonal Antibody
Catalog # AP63689

Specification

KCNK9 (TASK-3) Polyclonal Antibody - Product Information

Application	**WB, IHC-P**
Primary Accession	Q9NPC2
Reactivity	**Human, Rat, Mouse**
Host	**Rabbit**
Clonality	**Polyclonal**

KCNK9 (TASK-3) Polyclonal Antibody - Additional Information

Gene ID 51305

Other Names
Potassium channel subfamily K member 9 (Acid-sensitive potassium channel protein TASK-3) (TWIK-related acid-sensitive K(+) channel 3) (Two pore potassium channel KT3.2) (Two pore K(+) channel KT3.2)

Dilution
WB~~WB 1:1000-2000, IHC 1:100-200
IHC-P~~N/A

Format
Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.09% (W/V) sodium azide.

Storage Conditions
-20℃

KCNK9 (TASK-3) Polyclonal Antibody - Protein Information

Name KCNK9 {ECO:0000303|PubMed:18678320, ECO:0000312|HGNC:HGNC:6283}

Function
K(+) channel that conducts voltage-dependent outward rectifying currents upon membrane depolarization. Voltage sensing is coupled to K(+) electrochemical gradient in an 'ion flux gating' mode where outward but not inward ion flow opens the gate (PubMed:11042359, PubMed:11431495, PubMed:26919430, PubMed:38630723). Changes ion selectivity and becomes permeable to Na(+) ions in response to extracellular acidification. Protonation of the pH sensor His-98 stabilizes C-type inactivation conformation likely converting the channel from outward K(+)-conducting, to inward Na(+)-conducting to nonconductive state (PubMed:22948150, PubMed:38630723). Homo- and heterodimerizes to form functional channels with distinct regulatory and gating

properties (By similarity) (PubMed:23169818, PubMed:38630723). Allows K(+) currents with fast-gating kinetics important for the repolarization and hyperpolarization phases of action potentials (By similarity). In granule neurons, hyperpolarizes the resting membrane potential to limit intrinsic neuronal excitability, but once the action potential threshold is reached, supports high- frequency action potential firing and increased neuronal excitability. Homomeric and/or heteromeric KCNK3:KCNK9 channels operate in cerebellar granule cells, whereas heteromeric KCNK1:KCNK9 enables currents in hippocampal dentate gyrus granule neurons (By similarity). Dispensable for central chemosensory respiration i.e. breathing controlled by brainstem CO2/pH, it rather conducts pH-sensitive currents and controls the firing rate of serotonergic raphe neurons involved in potentiation of the respiratory chemoreflex (By similarity). In retinal ganglion cells, mediates outward currents that regulate action potentials in response to acidification of the synaptic cleft. Involved in transmission of image-forming and nonimage-forming visual information in the retina (By similarity). In adrenal gland, contributes to the maintenance of a hyperpolarized resting membrane potential of aldosterone-producing cells at zona glomerulosa and limits aldosterone release as part of a regulatory mechanism that controls arterial blood pressure and electrolyte homeostasis (By similarity).

Cellular Location
Cell membrane; Multi-pass membrane protein. Mitochondrion inner membrane {ECO:0000250|UniProtKB:Q3LS21}; Multi-pass membrane protein. Cell projection, dendrite {ECO:0000250|UniProtKB:Q3LS21}. Note=Colocalizes with MAP2 in the soma and proximal dendrites of dentate gyrus granule cells {ECO:0000250|UniProtKB:Q3LS21}

Tissue Location
Mainly found in the cerebellum. Also found in adrenal gland, kidney and lung.

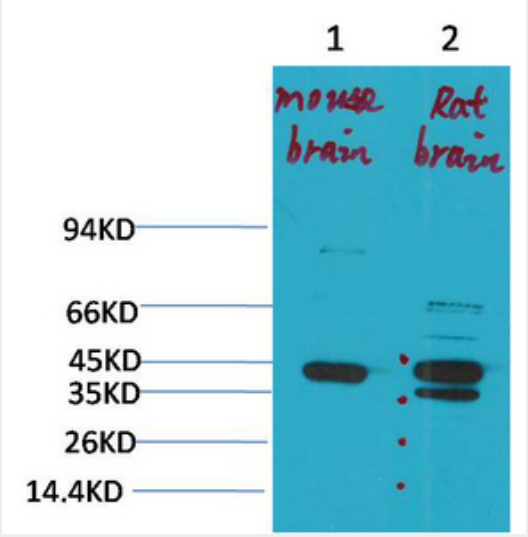
KCNK9 (TASK-3) Polyclonal Antibody - Protocols

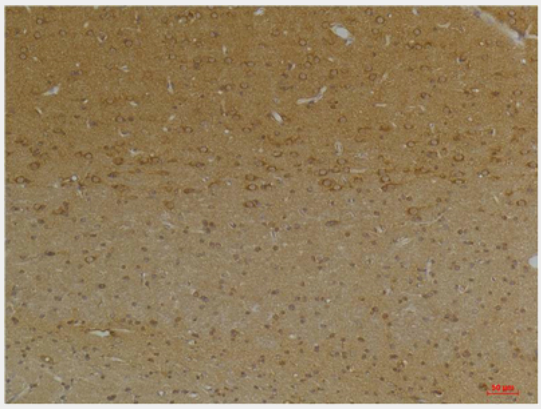
Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

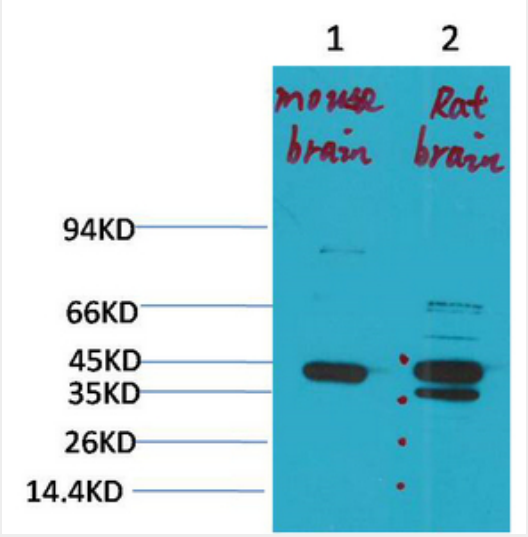
KCNK9 (TASK-3) Polyclonal Antibody - Images

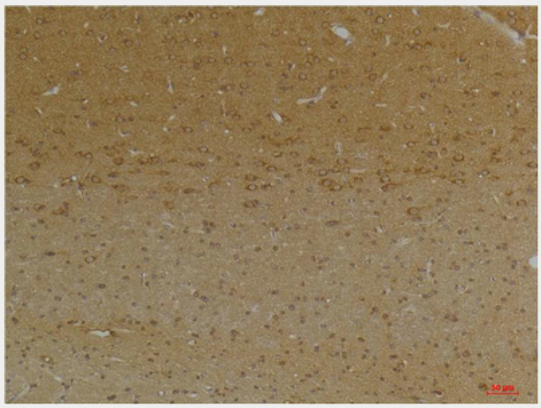
10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

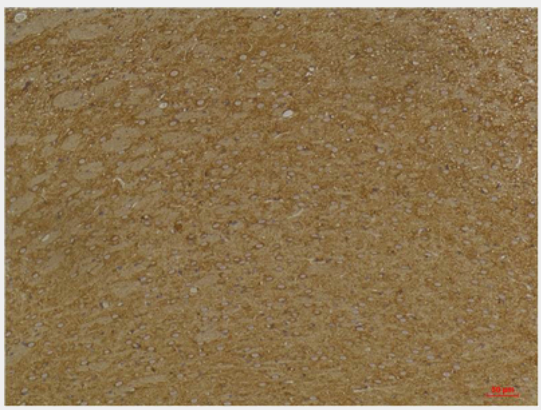




10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999







KCNK9 (TASK-3) Polyclonal Antibody - Background

pH-dependent, voltage-insensitive, background potassium channel protein.