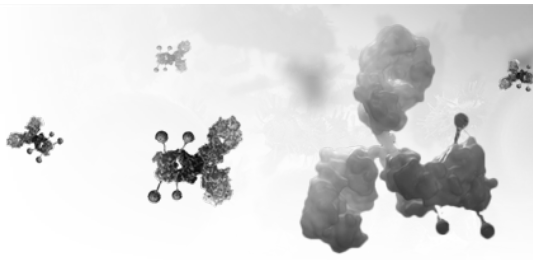

Mouse Anti-KCNC2 monoclonal antibody, clone O520/28 (CABT-RM154)

This product is for research use only and is not intended for diagnostic use.

PRODUCT INFORMATION

Specificity	Specifically detects Voltage-gated potassium channel subunit Kv3.2. It targets an epitope with in the C-terminal region.
Target	KCNC2
Immunogen	A recombinant fragment corresponding to 140 amino acids from the C-terminal region of rat Voltage-gated potassium channel subunit Kv3.2.
Isotype	IgG1, κ
Source/Host	Mouse
Species Reactivity	Human, Mouse, Rat
Clone	O520/28
Purification	Protein G purified
Conjugate	unconjugated
Applications	WB, IHC
Molecular Weight	~67 kDa observed; 67.55 kDa calculated. Uncharacterized bands may be observed in some lysate(s).
Format	Liquid
Size	100 µg
Buffer	0.1 M Tris-Glycine (pH 7.4), 150 mM NaCl

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Preservative	0.05% sodium azide
Storage	Stable for 1 year at 2-8°C from date of receipt.

BACKGROUND

Introduction	Potassium voltage-gated channel subfamily C member 2 is encoded by the Kcnc2 gene in rat. Potassium voltage-gated channel 3.2 is a multi-pass membrane protein that is widely expressed in the brain. It mediates transmembrane potassium transport in excitable membranes and contributes to the regulation of the fast action potential repolarization and in sustained high-frequency firing in neurons of the central nervous system. It is usually present as a homotetramer, but can also form heterotetramer with other channel-forming alpha subunits, such as Kv3.1. Homotetrameric channels mediate delayed-rectifier voltage-dependent potassium currents that activate rapidly at high-threshold voltages and inactivate slowly. The channel is reported to alternate between opened and closed conformations in response to the voltage difference across the membrane. The channel is reported to alternate between opened and closed conformations in response to the voltage difference across the membrane. Channel opening and closing is affected by a conformation change that affects the position and orientation of the voltage-sensor paddle formed by transmembrane domains S3 and S4. A transmembrane electric field that is positive inside would push the positively charged S4 segment outwards, thereby opening the pore, while a field that is negative inside would pull the S4 segment inwards and close the pore. Kv3.2 is phosphorylated by protein kinase A, which leads to inhibition of channel activity.
Keywords	KCNC2; potassium voltage-gated channel, Shaw-related subfamily, member 2; potassium voltage-gated channel subfamily C member 2; Kv3.2; KSHIIIA; KV3 2; Kv3 2d voltage gated potassium channel; Potassium voltage gated potassium channel subfamily C member 2

GENE INFORMATION

Entrez Gene ID	246153
UniProt ID	P22462-3

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