

Phospho-Kv2.1 (Ser805) Ab

Cat.#: AF3440
Size: 100ul,200ul

Concn.: 1mg/ml
Source: Rabbit

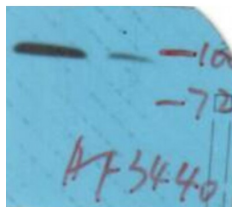
Mol.Wt.: 96kDa
Clonality: Polyclonal

Application:	WB 1:500-1:2000
Reactivity:	Human,Mouse,Rat
Purification:	The Ab is from purified rabbit serum by affinity purification via sequential chromatography on phospho- and non-phospho-peptide affinity columns.
Specificity:	Phospho-Kv2.1 (Ser805) Ab detects endogenous levels of Kv2.1 only when phosphorylated at Serine 805.
Immunogen:	A synthesized peptide derived from human Kv2.1 around the phosphorylation site of Serine 805.
Uniprot:	Q14721
Description:	Kv2.1 a potassium voltage-gated channel protein of subfamily B. Mediates the voltage-dependent potassium ion permeability of excitable membranes. Channels open or close in response to the voltage difference across the membrane, letting K ions pass in accordance with their electrochemical gradient.
Subcellular Location:	Membrane.
Tissue Specificity:	Expressed in neocortical pyramidal cells (PubMed:24477962). Expressed in pancreatic beta cells (at protein level) (PubMed:12403834, PubMed:14988243). Expressed in brain, heart, lung, liver, colon, kidney and adrenal gland (PubMed:19074135). Expressed in the cortex, amygdala, cerebellum, pons, thalamus, hypothalamus, hippocampus and substantia nigra (PubMed:19074135).
Similarity:	The transmembrane segment S4 functions as voltage-sensor and is characterized by a series of positively charged amino acids at every third position. Channel opening and closing is effected by a conformation change that affects the position and orientation of the voltage-sensor paddle formed by S3 and S4 within the membrane. 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. Changes in the position and orientation of S4 are then transmitted to the activation gate formed by the inner helix bundle via the S4-S5 linker region. The N-terminal and C-terminal cytoplasmic regions mediate

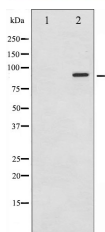
homooligomerization; self-association is required to regulate trafficking, gating and C-terminal phosphorylation-dependent modulation of the channel (PubMed:11852086, PubMed:12060745, PubMed:12560340, PubMed:19074135, PubMed:24901643). The N-terminal cytoplasmic region is important for interaction with other channel-forming alpha subunits and with ancillary beta subunits (PubMed:24901643). The C-terminus is necessary and sufficient for the restricted localization to, and clustering within, both in soma and proximal portions of dendrite of neurons and in lateral membrane of non-neuronal polarized cells. The C-terminus is both necessary and sufficient as a mediator of cholinergic and calcium-stimulated modulation of channel cell membrane clustering localization and activity in hippocampal neurons (By similarity).Belongs to the potassium channel family. B (Shab) (TC 1.A.1.2) subfamily. Kv2.1/KCNB1 sub-subfamily. [View classification]

Storage Condition and Buffer:

Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.Store at -20 °C.Stable for 12 months from date of receipt.



Western blot analysis of Phospho-Kv2.1 (Ser805) Ab expression in TNF treated K562 cells lysates.The lane on the right is treated with the antigen-specific peptide.



Western blot analysis of Kv2.1 phosphorylation expression in TNF treated K562 whole cell lysates,The lane on the left is treated with the antigen-specific peptide.

IMPORTANT: For western blot, incubate membrane with diluted primary Ab in 5% w/v milk , 1X TBS, 0.1% Tween@20 at 4°C with gentle shaking, overnight.

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