

Basic Information

Product Name	Anti-Kv1.1/KCNA1 Antibody	
Gene Name	KCNA1	
Source	Rabbit	
Clonality	Polyclonal	
Isotype	IgG	
Species Reactivity	human, mouse, rat	
Tested Application	WB, FCM, ELISA	
Contents	500 ug/ml antibody with PBS, 0.02% NaN ₃ , 1 mg/ml BSA and 50% glycerol.	
Immunogen	E.coli-derived human Kv1.1 potassium channel/KCNA1 recombinant protein (Position: M1-V495).	
Concentration	500 ug/ml	
Purification	Immunogen affinity purified.	
Observed MW	90 kDa	
Dilution Ratios	Western blot (WB): 1:500-2000 Flow Cytometry (Fixed): 1:50-200 Enzyme linked immunosorbent assay (ELISA):1:100-1000	

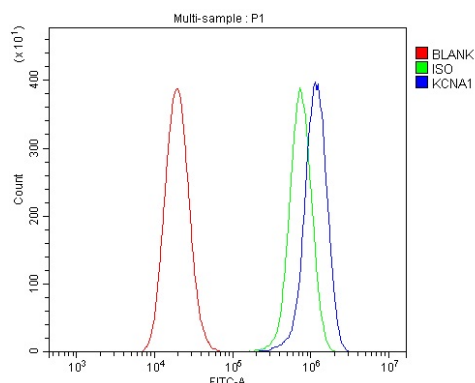
Storage

12 months from date of receipt, -20°C as supplied. 6 months 2 to 8°C after reconstitution. Avoid repeated freezing and thawing.

Background Information

Potassium voltage-gated channel subfamily A member 1, also known as Kv1.1, is a shaker related voltage-gated potassium channel that in humans is encoded by the KCNA1 gene. It is mapped to 12p13.32. The protein functions as a potassium selective channel through which the potassium ion may pass through in consensus with the electrochemical gradient. The N-terminus of the channel is associated with beta subunits that can modify the inactivation properties of the channel as well as affect expression levels. The C-terminus of the channel is complexed to a PDZ domain protein that is responsible for channel targeting.

Selected Validation Data

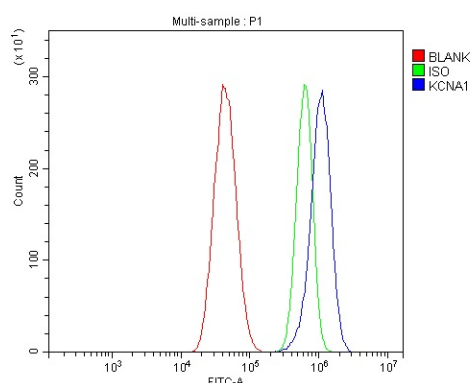


Western blot analysis of Kv1.1/KCNA1 using anti-Kv1.1/KCNA1 antibody (A01813-3). The sample well of each lane was loaded with 30 ug of sample under reducing conditions.

Lane 1: rat brain tissue lysates,

Lane 2: mouse brain tissue lysates.

After electrophoresis, proteins were transferred to a membrane. Then the membrane was incubated with rabbit anti-Kv1.1/KCNA1 antigen affinity purified polyclonal antibody (A01813-3) at a dilution of 1:1000 and probed with a goat anti-rabbit IgG-HRP secondary antibody (Catalog # BA1054). The signal is developed using ECL Plus Western Blotting Substrate (Catalog # AR1197). A specific band was detected for Kv1.1/KCNA1 at approximately 90 kDa. The expected band size for Kv1.1/KCNA1 is at 56 kDa.



Flow Cytometry analysis of U2OS cells using anti-Kv1.1/KCNA1 antibody (A01813-3).

Overlay histogram showing U2OS cells stained with A01813-3 (Blue line). To facilitate intracellular staining, cells were fixed with 4% paraformaldehyde and permeabilized with permeabilization buffer. The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-Kv1.1/KCNA1 Antibody (A01813-3) at 1:100 dilution for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127) was used as secondary antibody at 1:100 dilution for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG at 1:100 dilution used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.