

# Kv10.1 Antibody

Purified Rabbit Polyclonal Antibody (Pab)

Catalog # AP51821

## Product Information

Application	WB
Primary Accession	<a href="#">O95259</a>
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	111423

## Additional Information

Gene ID	3756
Other Names	Potassium voltage-gated channel subfamily H member 1, Ether-a-go-go potassium channel 1, EAG channel 1, h-eag, hEAG1, Voltage-gated potassium channel subunit Kv101, KCNH1, EAG, EAG1
Target/Specificity	KLH-conjugated synthetic peptide encompassing a sequence within the center region of human Kv10.1. The exact sequence is proprietary.
Dilution	WB~~ 1:1000
Format	0.01M PBS, pH 7.2, 0.09% (W/V) Sodium azide, Glycerol 50%
Storage	Store at -20 °C.Stable for 12 months from date of receipt

## Protein Information

Name	KCNH1 ( <a href="#">HGNC:6250</a> )
Function	<p>Pore-forming (alpha) subunit of a voltage-gated delayed rectifier potassium channel that mediates outward-rectifying potassium currents which, on depolarization, reaches a steady-state level and do not inactivate (PubMed:<a href="#">10880439</a>, PubMed:<a href="#">11943152</a>, PubMed:<a href="#">22732247</a>, PubMed:<a href="#">25420144</a>, PubMed:<a href="#">25556795</a>, PubMed:<a href="#">25915598</a>, PubMed:<a href="#">27005320</a>, PubMed:<a href="#">27325704</a>, PubMed:<a href="#">27618660</a>, PubMed:<a href="#">30149017</a>, PubMed:<a href="#">9738473</a>). The activation kinetics depend on the prepulse potential and external divalent cation concentration (PubMed:<a href="#">11943152</a>). With negative prepulses, the current activation is delayed and slowed down several fold, whereas more positive prepulses speed up activation (PubMed:<a href="#">11943152</a>). The time course of activation is biphasic with a fast and a slowly activating current component (PubMed:<a href="#">11943152</a>). Activates at more positive membrane potentials and exhibit a steeper activation curve (PubMed:<a href="#">11943152</a>). Channel properties are</p>

modulated by subunit assembly (PubMed:[11943152](#)). Mediates IK(NI) current in myoblasts (PubMed:[9738473](#)). Involved in the regulation of cell proliferation and differentiation, in particular adipogenic and osteogenic differentiation in bone marrow-derived mesenchymal stem cells (MSCs) (PubMed:[23881642](#)).

#### Cellular Location

Cell membrane; Multi-pass membrane protein. Nucleus inner membrane; Multi-pass membrane protein. Cell projection, dendrite {ECO:0000250|UniProtKB:Q63472}. Cell projection, axon {ECO:0000250|UniProtKB:Q63472}. Presynaptic cell membrane {ECO:0000250|UniProtKB:Q63472}. Perikaryon {ECO:0000250|UniProtKB:Q63472}. Postsynaptic density membrane {ECO:0000250|UniProtKB:Q63472}. Early endosome membrane. Note=Perinuclear KCNH1 is located to NPC-free islands

#### Tissue Location

Highly expressed in brain and in myoblasts at the onset of fusion, but not in other tissues (PubMed:9738473). Detected in HeLa (cervical carcinoma), SH-SY5Y (neuroblastoma) and MCF-7 (epithelial tumor) cells, but not in normal epithelial cells

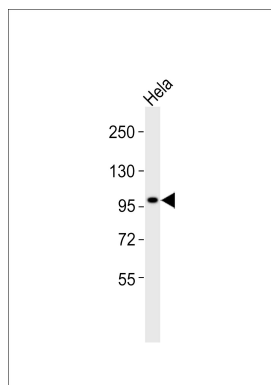
## Background

Pore-forming (alpha) subunit of voltage-gated non- inactivating delayed rectifier potassium channel. Channel properties may be modulated by cAMP and subunit assembly. Mediates IK(NI) current in myoblasts.

## References

Occhiodoro T.,et al.FEBS Lett. 434:177-182(1998).  
Pardo L.A.,et al.EMBO J. 18:5540-5547(1999).  
Gregory S.G.,et al.Nature 441:315-321(2006).  
Mural R.J.,et al.Submitted (SEP-2005) to the EMBL/GenBank/DDBJ databases.  
Schoenherr R.,et al.EMBO J. 19:3263-3271(2000).

## Images



Anti-Kv10.1 Antibody at 1:1000 dilution + HeLa whole cell lysates Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution Predicted band size : 111 kDa Blocking/Dilution buffer: 5% NFDm/TBST.

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