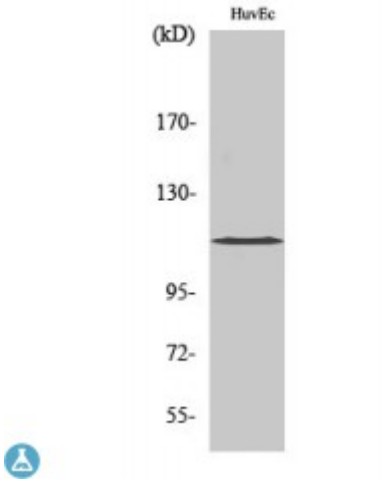
Anti-KCNH1 antibody



Description	Rabbit polyclonal to KCNH1.

Model	STJ93821
Host	Rabbit
Reactivity	Human, Mouse, Rat
Applications	ELISA, WB
Immunogen	Synthesized peptide derived from human KCNH1
Immunogen Region	690-770 aa, Internal
Gene ID	3756
Gene Symbol	KCNH1
Dilution range	WB 1:500-1:2000ELISA 1:5000
Specificity	KCNH1 Polyclonal Antibody detects endogenous levels of KCNH1 protein.
Tissue Specificity	Highly expressed in brain and in myoblasts at the onset of fusion, but not in other tissues. Detected in HeLa (cervical carcinoma), SH-SY5Y (neuroblastoma) and MCF-7 (epithelial tumor) cells, but not in normal epithelial cells.
Purification	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
Note	For Research Use Only (RUO).
Protein Name	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 Kv10.1

Molecular Weight	110 kDa
Clonality	Polyclonal
Conjugation	Unconjugated
Isotype	IgG
Formulation	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Concentration	1 mg/ml
Storage Instruction	Store at -20°C, and avoid repeat freeze-thaw cycles.
Database Links	HGNC:6250OMIM:135500
Alternative 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 Kv10.1
Function	Pore-forming (alpha) subunit of a voltage-gated delayed rectifier potassium channel . Channel properties are modulated by subunit assembly . Mediates IK(NI) current in myoblasts . Involved in the regulation of cell proliferation and differentiation, in particular adipogenic and osteogenic differentiation in bone marrow-derived mesenchymal stem cells (MSCs) .
Sequence and Domain Family	The segment S4 is probably the voltage-sensor and is characterized by a series of positively charged amino acids at every third position. The C-terminal region interacts with the cyclic nucleotide-binding domain and contributes to regulate channel gating. The PAS and PAC domain interact with the cyclic nucleotide-binding domain and contribute to the regulation of channel gating . Calmodulin binding clamps together the PAS and PAC domain with the cyclic nucleotide-binding domain from a neighboring subunit and causes a conformation change that leads to channel closure. The cyclic nucleotide-binding domain lacks residues that are essential for nucleotide-binding and cannot bind cyclic nucleotides. Instead, residues from the C-terminal domain (the so-called intrinsic ligand) bind in the cavity that would be expected to bind cyclic nucleotides. Interaction with the C-terminal region hinders interaction with CALM and reduces the affinity for CALM.
Cellular Localization	Cell membrane Nucleus inner membrane Cell projection, dendrite Cell projection, axon Cell junction, synapse, presynaptic cell membrane Perikaryon Cell junction, synapse, postsynaptic cell membrane, postsynaptic density Early endosome membrane. Perinuclear KCNH1 is located to NPC-free islands.
Post-translational Modifications	Channel activity is regulated via tyrosine phosphorylation/dephosphorylation by SRC and PTPN6 .