Recombinant Human KCNH1

Cat. No. KCNH1-29891TH **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant fragment of Human KCNH1 with N terminal proprietary tag; Predicted MW 36.52 kDa.
Species	Human
Source	Wheat Germ
ProteinLength	99 amino acids
Description	Voltage-gated potassium (Kv) channels represent the most complex class of voltage-gated ion channels from both functional and structural standpoints. Their diverse functions include regulating neurotransmitter release, heart rate, insulin secretion, neuronal excitability, epithelial electrolyte transport, smooth muscle contraction, and cell volume. This gene encodes a member of the potassium channel, voltage-gated, subfamily H. This member is a pore-forming (alpha) subunit of a voltage-gated non-inactivating delayed rectifier potassium channel. It is activated at the onset of myoblast differentiation. The gene is highly expressed in brain and in myoblasts. Overexpression of the gene may confer a growth advantage to cancer cells and favor tumor cell proliferation. Alternative splicing of this gene results in two transcript variants encoding distinct isoforms.
Molecular Weight	36.520kDa inclusive of tags
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-

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	7 (epithelial tumor) cells, but not in normal epithelial cells.
Form	Liquid
Purity	Proprietary Purification
Storage buffer	pH: 8.00Constituents:0.3% Glutathione, 0.79% Tris HCl
Storage	Shipped on dry ice. Upon delivery aliquot and store at -80oC. Avoid freeze / thaw cycles.
Sequences of amino acids	RLDNVGEARSPQDRSPILAEVKHSFYPIPEQTLQATVLEVRHELKEDIKALNAKMTNI EKQLSEILRILTSRRSSQSPQELFEISRPQSPESERDIFGA
Sequence Similarities	Belongs to the potassium channel family. H (Eag) (TC 1.A.1.20) subfamily. Kv10.1/KCNH1 sub-subfamily.Contains 1 cyclic nucleotide-binding domain.Contains 1 PAC (PAS-associated C-terminal) domain.Contains 1 PAS (PER-ARNT-SIM) domain.

GENE INFORMATION

Gene Name	KCNH1 potassium voltage-gated channel, subfamily H (eag-related), member 1 [Homo sapiens]
Official Symbol	KCNH1
Synonyms	KCNH1; potassium voltage-gated channel, subfamily H (eag-related), member 1; potassium voltage-gated channel subfamily H member 1; eag; eag1; h eag; Kv10.1;
Gene ID	3756
mRNA Refseq	NM_002238

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Protein Refseq	NP_002229
MIM	603305
Uniprot ID	O95259
Chromosome Location	1q32.2
Pathway	Neuronal System, organism-specific biosystem; Potassium Channels, organism-specific biosystem; Voltage gated Potassium channels, organism-specific biosystem;
Function	calmodulin binding; delayed rectifier potassium channel activity; protein binding; two-component sensor activity; voltage-gated ion channel activity;

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