



Rabbit Anti-ERG/KCNH2 antibody

SL23703R

Product Name:	ERG/KCNH2
Chinese Name:	特异性钾离子Channel protein抗体
Alias:	ERG; ERG1; H ERG; HERG 1; HERG; HERG1; LQT 2; LQT2; Potassium channel HERG; SQT1; Voltagegated potassium channel, subfamily H, member 2; KCNH2 HUMAN.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,Dog,Pig,Cow,Horse,Rabbit,Sheep,
Applications:	WB=1:500-2000IHC-P=1:400-800IHC-F=1:400-800ICC=1:100-500IF=1:100-500 (Paraffin sections need antigen repair) not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	127kDa
Cellular localization:	The cell membrane
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthetic peptide derived from human ERG/KCNH2:751-850/1159<Cytoplasmic>
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
PubMed:	PubMed
Product Detail:	The potassium voltage gated channel, subfamily H (eag related), member 2 (KCNH2) gene encodes a voltage-gated potassium channel which has an important role in cardiac action potential repolarization in the mammalian heart. Mutations in KCNH2 have been shown to cause chromosome 7-linked congenital long QT syndrome, a disorder

associated with delayed cardiac repolarization, prolonged electrocardiographic QT intervals, and the development of ventricular arrhythmias. KCNH2 channels are an important target for many drugs, and have emerged as a significant type of cardiac ion channel. Highly expressed in heart and brain.

Function:

Pore-forming (alpha) subunit of voltage-gated inwardly rectifying potassium channel. Channel properties are modulated by cAMP and subunit assembly. Mediates the rapidly activating component of the delayed rectifying potassium current in heart (IKr). Isoform 3 has no channel activity by itself, but modulates channel characteristics when associated with isoform 1.

Subunit:

The potassium channel is probably composed of a homo- or heterotetrameric complex of pore-forming alpha subunits that can associate with modulating beta subunits. Heteromultimer with KCNH6/ERG2 and KCNH7/ERG3. Interacts with ALG10B (By similarity). Heteromultimer with KCNE1 and KCNE2.

Subcellular Location:

Membrane; Multi-pass membrane protein.

Tissue Specificity:

Highly expressed in heart and brain.

Post-translational modifications:

Phosphorylated on serine and threonine residues. Phosphorylation by PKA inhibits ion conduction.

DISEASE:

Defects in KCNH2 are the cause of long QT syndrome type 2 (LQT2) [MIM:613688]. Long QT syndromes are heart disorders characterized by a prolonged QT interval on the ECG and polymorphic ventricular arrhythmias. They cause syncope and sudden death in response to exercise or emotional stress. Deafness is often associated with LQT2. Defects in KCNH2 are the cause of short QT syndrome type 1 (SQT1) [MIM:609620]. Short QT syndromes are heart disorders characterized by idiopathic persistently and uniformly short QT interval on ECG in the absence of structural heart disease in affected individuals. They cause syncope and sudden death.

Similarity:

Belongs to the potassium channel family. H (Eag) (TC1.A.1.20) subfamily. Kv11.1/KCNH2 sub-subfamily. Contains 1 cyclic nucleotide-binding domain. Contains 1 PAC (PAS-associated C-terminal) domain. Contains 1 PAS (PER-ARNT-SIM) domain.

SWISS:

Q12809

Gene ID:
3757

Database links:

[Entrez Gene: 3757](#) Human

[Entrez Gene: 16511](#) Mouse

[Entrez Gene: 117018](#) Rat

[Omim: 152427](#) Human

[SwissProt: Q12809](#) Human

[SwissProt: O35219](#) Mouse

[SwissProt: O08962](#) Rat

[Unigene: 647099](#) Human

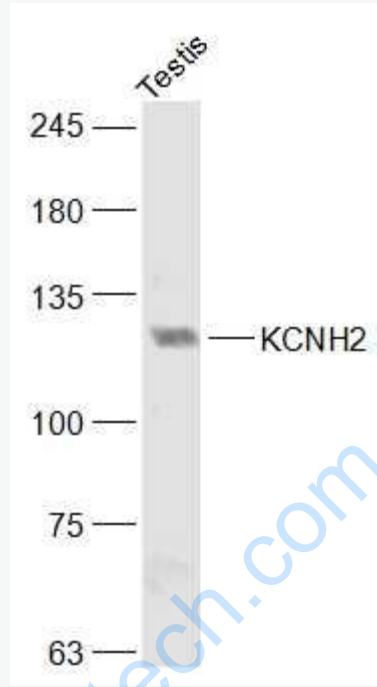
[Unigene: 6539](#) Mouse

[Unigene: 10970](#) Rat

Important Note:

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

Picture:



Sample:

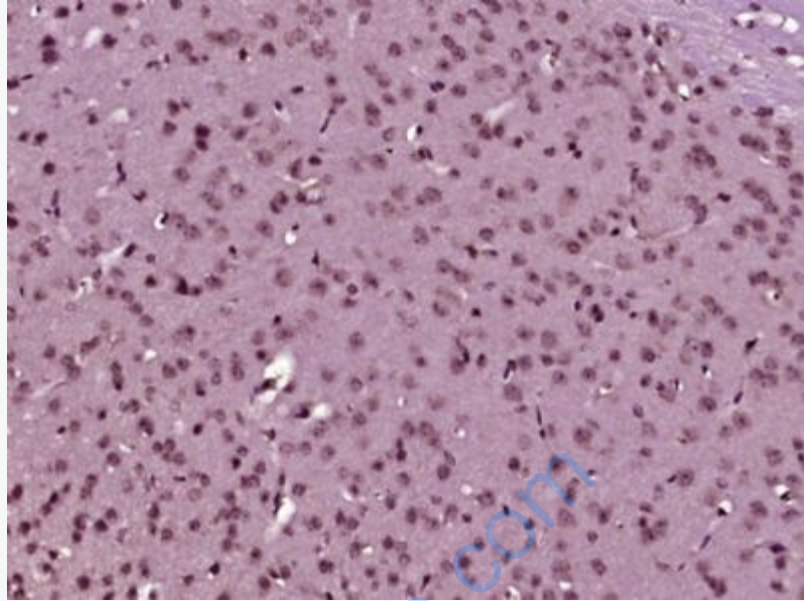
Testis (Mouse) Lysate at 40 ug

Primary: Anti-KCNH2 (SL23703R) at 1/1000 dilution

Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 127 kD

Observed band size: 127 kD



Paraformaldehyde-fixed, paraffin embedded (Mouse brain); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (ERG/KCNH2) Polyclonal Antibody, Unconjugated (SL23703R) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.