

## Product datasheet for **TP313421L**

### **KCNQ4 (NM\_172163) Human Recombinant Protein**

#### **Product data:**

<b>Product Type:</b>	Recombinant Proteins
<b>Description:</b>	Recombinant protein of human potassium voltage-gated channel, KQT-like subfamily, member 4 (KCNQ4), transcript variant 2, 1 mg
<b>Species:</b>	Human
<b>Expression Host:</b>	HEK293T
<b>Expression cDNA Clone or AA Sequence:</b>	>RC213421 representing NM_172163 <b>Red</b> =Cloning site <b>Green</b> =Tags(s)

MAEAPRRRLGLGPPPGDAPRAELVALTAVQSEQGEAGGGGSPRRLLGLLGSPLPPGAPLPGPGSGSGSACG  
QRSSAAHKRYRRLQNWVYNVLERPRGWAFVYHVFIILLVFSCLVLSVLSTIQEHQELANECLLILEFVMI  
VVFLEYIVRWSAGCCCRYRGWQGRFRFARKPFCVIDFIVFVASVAVIAAGTQGNIFATSALRSMRFLQ  
ILRMVRMDRRGGTWKLLGSVYAHSKELITAWYIGFLVLIFASFLVYLAEKDANSDFSSYADSLWWGTIT  
LTTIGYGDKTPHTWLGRVLAAGFALLGISFFALPAGILGSGFALKVQEQRQKHFEKRRMPAANLIQAAW  
RLYSTDMSRAYLTATWYYYDSILPSFSSRMGIKDRIRMGSSQRRRTGPSKQHLAPPTMPTSPSSEQVGEAT  
SPTKVQKSWSFNDRTRFRASLRLKPRTSAEDAPSEEVAEEKSYQCELTVDIMPVKTVIRSIRILKFLV  
AKRKFKETLRPYDVKDVIEQYSAGHLDMLGRIKSLQTRVDQIVGRGPGDRKAREKGDGKPSDAEVDDEIS  
MMGRVVKVEKQVQSIEHKL DLLLGFYSRCLRSGTSASLGAVQVPLFDPDITSDYHSPVDHEDISVSAQTL  
SISRSVSTNMD

**TRRLEQKLISEEDLAANDILDYKDDDDKV**

<b>Tag:</b>	C-Myc/DDK
<b>Predicted MW:</b>	71 kDa
<b>Concentration:</b>	>0.05 µg/µL as determined by microplate BCA method
<b>Purity:</b>	> 80% as determined by SDS-PAGE and Coomassie blue staining
<b>Buffer:</b>	25 mM Tris-HCl, 100 mM glycine, pH 7.3, 10% glycerol
<b>Preparation:</b>	Recombinant protein was captured through anti-DDK affinity column followed by conventional chromatography steps.
<b>Note:</b>	For testing in cell culture applications, please filter before use. Note that you may experience some loss of protein during the filtration process.
<b>Storage:</b>	Store at -80°C.



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**Stability:** Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.

**RefSeq:** [NP\\_751895](#)

**Locus ID:** 9132

**UniProt ID:** [P56696](#), [B3KQH8](#)

**RefSeq Size:** 2173

**Cytogenetics:** 1p34.2

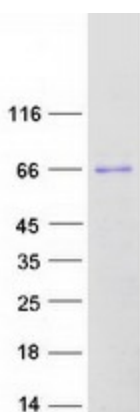
**RefSeq ORF:** 1923

**Synonyms:** DFNA2; DFNA2A; KV7.4

**Summary:** The protein encoded by this gene forms a potassium channel that is thought to play a critical role in the regulation of neuronal excitability, particularly in sensory cells of the cochlea. The current generated by this channel is inhibited by M1 muscarinic acetylcholine receptors and activated by retigabine, a novel anti-convulsant drug. The encoded protein can form a homomultimeric potassium channel or possibly a heteromultimeric channel in association with the protein encoded by the KCNQ3 gene. Defects in this gene are a cause of nonsyndromic sensorineural deafness type 2 (DFNA2), an autosomal dominant form of progressive hearing loss. Two transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Jul 2008]

**Protein Families:** Druggable Genome, Ion Channels: Potassium, Transmembrane

### Product images:



Coomassie blue staining of purified KCNQ4 protein (Cat# [TP313421]). The protein was produced from HEK293T cells transfected with KCNQ4 cDNA clone (Cat# [RC213421]) using MegaTran 2.0 (Cat# [TT210002]).