

## Product datasheet for **MR220977L3V**

### **Kcna4 (NM\_021275) Mouse Tagged ORF Clone Lentiviral Particle**

#### **Product data:**

|                           |  |
|---------------------------|--|
| Product Type:             | Lentiviral Particles   |
| Product Name:             | Kcna4 (NM_021275) Mouse Tagged ORF Clone Lentiviral Particle   |
| Symbol:                   | Kcna4  |
| Synonyms:                 | Kv1.4  |
| Mammalian Cell Selection: | Puromycin  |
| Vector:                   | pLenti-C-Myc-DDK-P2A-Puro (PS100092)   |
| Tag:                      | Myc-DDK  |
| ACCN:                     | NM_021275  |
| ORF Size:                 | 1962 bp  |
| ORF Nucleotide Sequence:  | The ORF insert of this clone is exactly the same as(MR220977).   |
| OTI Disclaimer:           | The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. <a href="#">More info</a> |
| OTI Annotation:           | This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.   |
| RefSeq:                   | <a href="#">NM_021275.4</a> , <a href="#">NP_067250.2</a>  |
| RefSeq Size:              | 4844 bp  |
| RefSeq ORF:               | 1965 bp  |
| Locus ID:                 | 16492  |
| UniProt ID:               | <a href="#">Q61423</a>   |
| Cytogenetics:             | 2 56.12 cM   |



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**Gene Summary:**

Voltage-gated potassium channel that mediates transmembrane potassium transport in excitable membranes. Forms tetrameric potassium-selective channels through which potassium ions pass in accordance with their electrochemical gradient. The channel alternates between opened and closed conformations in response to the voltage difference across the membrane (PubMed:8020965). Can form functional homotetrameric channels and heterotetrameric channels that contain variable proportions of KCNA1, KCNA2, KCNA4, KCNA5, and possibly other family members as well; channel properties depend on the type of alpha subunits that are part of the channel (By similarity). Channel properties are modulated by cytoplasmic beta subunits that regulate the subcellular location of the alpha subunits and promote rapid inactivation. In vivo, membranes probably contain a mixture of heteromeric potassium channel complexes, making it difficult to assign currents observed in intact tissues to any particular potassium channel family member. Homotetrameric KCNA4 forms a potassium channel that opens in response to membrane depolarization, followed by rapid spontaneous channel closure (PubMed:8020965). Likewise, a heterotetrameric channel formed by KCNA1 and KCNA4 shows rapid inactivation (By similarity).[UniProtKB/Swiss-Prot Function]