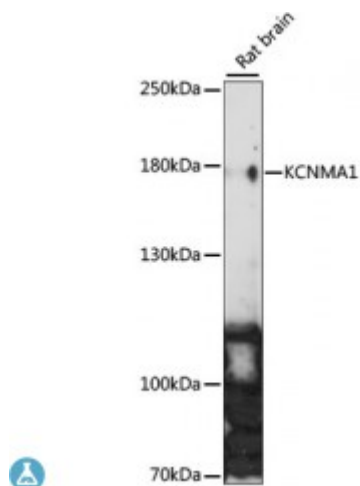


## Anti-KCNMA1 Antibody



### Description

MaxiK channels are large conductance, voltage and calcium-sensitive potassium channels which are fundamental to the control of smooth muscle tone and neuronal excitability. MaxiK channels can be formed by 2 subunits: the pore-forming alpha subunit, which is the product of this gene, and the modulatory beta subunit. Intracellular calcium regulates the physical association between the alpha and beta subunits. Alternatively spliced transcript variants encoding different isoforms have been identified.

|                           |                                                                                                                                              |
|---------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Model</b>              | STJ117478                                                                                                                                    |
| <b>Host</b>               | Rabbit                                                                                                                                       |
| <b>Reactivity</b>         | Rat                                                                                                                                          |
| <b>Applications</b>       | WB                                                                                                                                           |
| <b>Immunogen</b>          | A synthetic peptide corresponding to a sequence within amino acids 850-950 of human KCNMA1 (NP_001258447.1).                                 |
| <b>Gene ID</b>            | <a href="#">3778</a>                                                                                                                         |
| <b>Gene Symbol</b>        | <a href="#">KCNMA1</a>                                                                                                                       |
| <b>Dilution range</b>     | WB 1:200 - 1:2000                                                                                                                            |
| <b>Tissue Specificity</b> | Widely expressed, Except in myocytes, it is almost ubiquitously expressed                                                                    |
| <b>Purification</b>       | Affinity purification                                                                                                                        |
| <b>Note</b>               | For Research Use Only (RUO).                                                                                                                 |
| <b>Protein Name</b>       | Calcium-activated potassium channel subunit alpha-1 BK channel BKCA<br>alpha Calcium-activated potassium channel subfamily M subunit alpha-1 |

|                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|-----------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                         | K(VCA alpha KCa1.1 Maxi K channel MaxiK Slo-alpha S                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Molecular Weight</b>                 | 137.56 kDa                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Clonality</b>                        | Polyclonal                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Conjugation</b>                      | Unconjugated                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Isotype</b>                          | IgG                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Formulation</b>                      | PBS with 0.02% sodium azide, 50% glycerol, pH7.3.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Storage Instruction</b>              | Store at -20C. Avoid freeze / thaw cycles.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Database Links</b>                   | <a href="https://www.ncbi.nlm.nih.gov/Protein/62840">HGNC:62840</a> <a href="https://www.ebi.ac.uk/EMBL/GenBank/CCDS/Protein/600150">MIM:600150</a> <a href="https://www.ebi.ac.uk/EMBL/GenBank/CCDS/Protein/R-HSA-1296052">Reactome:R-HSA-1296052</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Alternative Names</b>                | Calcium-activated potassium channel subunit alpha-1 BK channel BKCA<br>alpha Calcium-activated potassium channel subfamily M subunit alpha-1<br>K(VCA alpha KCa1.1 Maxi K channel MaxiK Slo-alpha S                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Function</b>                         | Potassium channel activated by both membrane depolarization or increase in cytosolic Ca(2+) that mediates export of K(+), It is also activated by the concentration of cytosolic Mg(2+), Its activation dampens the excitatory events that elevate the cytosolic Ca(2+) concentration and/or depolarize the cell membrane, It therefore contributes to repolarization of the membrane potential, Plays a key role in controlling excitability in a number of systems, such as regulation of the contraction of smooth muscle, the tuning of hair cells in the cochlea, regulation of transmitter release, and innate immunity, In smooth muscles, its activation by high level of Ca(2+), caused by ryanodine receptors in the sarcoplasmic reticulum, regulates the membrane potential, In cochlea cells, its number and kinetic properties partly determine the characteristic frequency of each hair cell and thereby helps to establish a tonotopic map, Kinetics of KCNMA1 channels are determined by alternative splicing, phosphorylation status and its combination with modulating beta subunits, Highly sensitive to both iberiotoxin (IbTx) and charybdotoxin (CTX) |
| <b>Cellular Localization</b>            | Cell membrane                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Post-translational Modifications</b> | Phosphorylated (Probable), Phosphorylation by kinases such as PKA and/or PKG, In smooth muscles, phosphorylation affects its activity,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |