

## PRODUCT DATA SHEET

Bioworld Technology CO., Ltd.



### KIR3.1 (F181) Peptide

Cat No.: BS1648P

#### Background

G protein-coupled inwardly rectifying potassium channels (KIR3.1 through KIR3.4) are coupled to numerous neurotransmitter receptors in the brain and are abundantly expressed in the olfactory bulb, hippocampus, neocortex, dentate gyrus, cerebellar cortex and thalamus regions of the brain. Also known as GIRK, KIR3 potassium channels localize to the soma and dendrites as well as axons of neurons. Liberated G $\beta\gamma$  subunits from G protein heterotrimers bind to and regulate KIR3 channel activity. G $\beta$ 3- and G $\beta$ 4-containing G $\beta\gamma$  dimers bind directly to cytoplasmic domains of KIR3 proteins and increase the K<sup>+</sup> current while G $\beta$ 5-containing G $\beta\gamma$  dimers inhibit KIR3 K<sup>+</sup> current. KIR3 activity is also inhibited by tyrosine phosphorylation. Brain-derived neurotrophic factor activates receptor tyrosine kinase B, which then phosphorylates KIR3 tyrosine residues, effectively inactivating the KIR3 channels.

#### Swiss-Prot

P48549

#### Applications

#### Blocking

#### Specificity

This peptide can be used with studies using BS1648 KIR3.1 (F181) pAb.

#### Purification & Purity

Synthetic peptide KIR3.1 (F181). (Note: the amino acid sequence is proprietary). The purity is > 98%.

#### Product

1 mg/ml in DI water.

#### Storage & Stability

Store at 4 °C short term. Aliquot and store at -20 °C long term. Avoid freeze-thaw cycles.

#### Research Use

For research use only, not for use in diagnostic procedure.