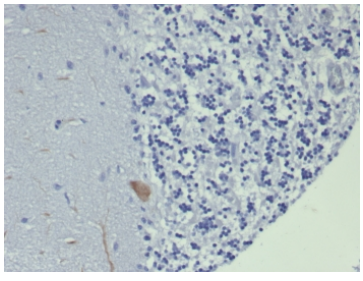
Kir3.2 Antibody KCNJ6/7559 / G Protein-Activated Inward Rectifier Potassium Channel 2 Antibody [clone KCNJ6/7559] (V4840)

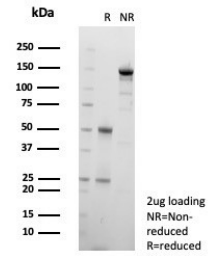
Catalog No.	Formulation	Size
V4840-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	100 ug
V4840-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	20 ug
V4840SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG2, kappa
Clone Name	KCNJ6/7559
Purity	Protein A/G affinity
UniProt	P48051
Localization	Membrane
Applications	Immunohistochemistry (FFPE): 1-2ug/ml for 30 min at RT
Limitations	This Kir3.2 Antibody KCNJ6/7559 / G Protein-Activated Inward Rectifier Potassium Channel 2 Antibody is available for research use only.



Kir3.2 Antibody KCNJ6/7559 in Human Brain IHC. Immunohistochemistry staining of FFPE human brain tissue with Kir3.2 Antibody clone KCNJ6/7559 at 2 ug/ml. HIER was performed by boiling tissue sections in pH 9 10mM Tris with 1mM EDTA for 20 min followed by cooling before testing. The image shows distinct brown staining in individual neuronal cell bodies and processes, contrasting with the surrounding hematoxylin-stained tissue. This neuronal staining supports tissue detection with the G Protein-Activated Inward Rectifier Potassium Channel 2 Antibody.



Purified Kir3.2 Antibody KCNJ6/7559 SDS-PAGE. SDS-PAGE analysis of 2 ug purified, BSA-free Kir3.2 Antibody clone KCNJ6/7559 under reducing (R) and non-reducing (NR) conditions. The reduced preparation resolves the expected antibody heavy and light chains near approximately 50 kDa and 25 kDa, while the non-reduced preparation shows a predominant intact immunoglobulin band above 100 kDa. The relatively simple electrophoretic profile supports the integrity and purity of the G Protein-Activated Inward Rectifier Potassium Channel 2 Antibody preparation.

Description

Kir3.2 Antibody KCNJ6/7559 / G Protein-Activated Inward Rectifier Potassium Channel 2 Antibody recognizes Kir3.2, an inwardly rectifying potassium channel encoded by the KCNJ6 gene and widely known as GIRK2. Kir3.2 belongs to the G protein-gated inward rectifier potassium channel family, whose members help regulate membrane potential and cellular excitability. The Kir3.2 designation reflects the channel's position within the Kir3 subfamily and is commonly used in studies of potassium channel physiology and neuronal signaling.

Kir3.2 activity is closely coupled to signaling through G protein-coupled receptors. Following receptor activation, released G protein beta-gamma subunits interact with GIRK channels and promote channel opening. The resulting potassium conductance can hyperpolarize the plasma membrane and decrease cellular excitability, providing a mechanism through which neurotransmitters and other extracellular signals regulate neuronal firing.

KCNJ6 can contribute to both homomeric and heteromeric GIRK channel complexes. Association with other GIRK subunits can influence channel kinetics, regulation and physiological function. GIRK2-containing channels are particularly important in the nervous system, where they participate in inhibitory signaling downstream of multiple neurotransmitter receptors and contribute to control of neuronal excitability and synaptic activity.

GIRK2 has been investigated in neural pathways associated with pain, reward, addiction and other processes influenced by inhibitory neurotransmission. KCNJ6 is also relevant to neurodevelopmental research because pathogenic variants in the gene are associated with Keppen-Lubinsky syndrome. These diverse roles make Kir3.2 an important target for studies connecting G protein signaling with ion-channel regulation and nervous system function.

NSJ Bioreagents offers clone KCNJ6/7559 as a monoclonal reagent for research into Kir3.2 expression and GIRK channel biology. The Kir3.2 Antibody terminology emphasizes the established potassium-channel nomenclature, while the expanded G Protein-Activated Inward Rectifier Potassium Channel 2 Antibody name describes the channel's functional identity.

A Kir3.2 Antibody provides a monoclonal reagent for investigating GIRK2/KCNJ6 biology, while a G Protein-Activated Inward Rectifier Potassium Channel 2 Antibody supports research into G protein-regulated potassium conductance and cellular excitability.

For another monoclonal antibody targeting the same potassium channel, see our KCNJ6 Antibody KCNJ6/7557 / GIRK2 Monoclonal Antibody.

Application Notes

Optimal dilution of the Kir3.2 Antibody KCNJ6/7559 / G Protein-Activated Inward Rectifier Potassium Channel 2 Antibody should be determined by the researcher.

Immunogen

A recombinant fragment of human KCNJ6 protein was used as the immunogen for the Kir3.2 Antibody KCNJ6/7559.

Storage

Aliquot the Kir3.2 Antibody KCNJ6/7559 and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.

Alternate Names

GIRK2 antibody, KCNJ6 antibody, G Protein-Activated Inward Rectifier Potassium Channel 2 antibody, G Protein-Gated Inward Rectifier Potassium Channel 2 antibody

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