

DESCRIPTION

Species Reactivity	Human/Mouse/Rat
Specificity	Detects human Pannexin-1 in direct ELISAs and Western blots. In Western blots, no cross-reactivity with recombinant human Pannexin-2 or -3 is observed.
Source	Monoclonal Mouse IgG _{2B} Clone # 720505
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	<i>E. coli</i> -derived recombinant human Pannexin-1 Pro298-Asp376 Accession # Q96RD7
Conjugate	Alexa Fluor 488 Excitation Wavelength: 488 nm Emission Wavelength: 515-545 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. [General Protocols](#) are available in the Technical Information section on our website.

Western Blot Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.

Stability & Storage Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

BACKGROUND

Pannexin-1 (PANX1) is an approximately 45 kDa member of the Pannexin family of four-transmembrane channel proteins with a conserved pattern of cysteines. It is expressed on epithelial cells, neuronal and glial cells, cardiac myocytes, T cells, and erythrocytes. Pannexin-1 forms large pore hexameric channels or heteromeric channels with Pannexin-2 and enables the efflux of ATP and UTP. Its conductance is increased in response to hypoxia, isotonic stress, NMDA R activation, and Caspase-3 and -7 activation during apoptosis. Extracellular release of ATP through Pannexin-1 activates P2X7 receptors which in turn induces the closure of Pannexin-1 channels. Pannexin-1 cooperates with P2X7 for inflammasome activation, Caspase-1 activation, and the release of mature IL-1β and also regulates T cell activation at the immunological synapse. Within aa 298-376 (in the C-terminal cytoplasmic domain), human Pannexin-1 shares 96% and 98% aa sequence identity with mouse and rat Pannexin-1, respectively. Alternate splicing generates an additional isoform that lacks the C-terminal four amino acids in the cytoplasmic tail.

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