

Product datasheet for **TA328663**

Pannexin 2 (PANX2) Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	IF, WB
Recommended Dilution:	WB: 1:200-1:2000; FC: 1:50-1:600
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Clonality:	Polyclonal
Immunogen:	Peptide (C)EEPIY(S)YTPHNFTRD, corresponding to amino acid residues 76-90 of human Pannexin 2. 1st extracellular loop.
Formulation:	Lyophilized. Concentration before lyophilization ~0.8mg/ml (lot dependent, please refer to CoA along with shipment for actual concentration). Buffer before lyophilization: Phosphate buffered saline (PBS), pH 7.4, 1% BSA, 0.05% NaN ₃ .
Reconstitution Method:	Add 50 ul double distilled water (DDW) to the lyophilized powder.
Purification:	Affinity purified on immobilized antigen.
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Gene Name:	pannexin 2
Database Link:	NP_443071 Entrez Gene 362979 Rat Entrez Gene 406218 Mouse Entrez Gene 56666 Human Q96RD6



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Background:

Gap junctions are usually found in clusters and enable intercellular communication by allowing the passage of small molecules between cells. They play important roles in different biological processes. These include differentiation, cell cycle synchronization, cellular development, neuronal activity and the immune response. Proteins involved in gap junction formation are composed of four transmembrane domains, 2 extracellular loops and one intracellular loop and intracellular N- and C-termini. Several consensus cysteine residues are in the extracellular loop and are essential and necessary for intercellular docking of gap junction hemichannels in the opposing cell membrane. Pannexins (Pannexin 1, Pannexin 2 and Pannexin 3) belong to the superfamily of gap junction proteins. Pannexin 1 (PANX1) is ubiquitously expressed, Pannexin 2 (PANX2) is specifically expressed in the human brain and widespread in rodents and Pannexin 3 (PANX3) is also detected in the brain. The gating properties of Pannexins were studied in *Xenopus* oocytes and results demonstrate that only PANX1 is able to form homomeric hemichannels, and is also able to form heteromeric hemichannels with PANX2 but not with PANX3. Not surprising, PANX1 gating properties depend whether it forms homomeric or heteromeric hemichannels. A number of different stimuli are known to open these channels and include mechanical stress, extracellular ATP, increases in intracellular Ca^{2+} and inflammation. Possible roles for Pannexins include paracrine signaling in vascular endothelial cells and taste cell signaling.

Synonyms:

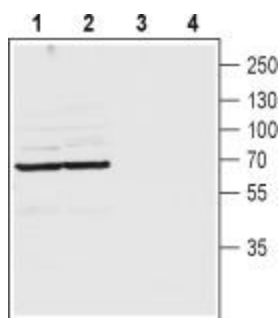
hPANX2; PX2

Note:

This antibody was tested in live cell imaging. Please see IF/ICC data for detail.

Protein Families:

Transmembrane

Product images:

Western blot analysis of rat (lanes 1 and 3) and mouse (lanes 2 and 4) brain lysates: 1, 2. Anti-Pannexin 2 (extracellular) antibody, (1:200). 3, 4. Anti-Pannexin 2 (extracellular) antibody, preincubated with the control peptide antigen.



Expression of Pannexin 2 in human U-87 MG glioblastoma cell line. Immunocytochemical staining of live intact human U-87 MG glioblastoma cells. A. Cells were stained with Anti-Pannexin 2 (extracellular) antibody, (1:50), followed by goat anti-rabbit-AlexaFluor-594 secondary antibody (red). B. Live view of the cells. C. Merge of A and B.