

Recombinant Rat PANX1 Protein

For Research Use Only

1. Basic Product Information

Catalog No.: REP52408

Size: 10ug, 100ug

Protein Name: Pannexin-1 [Cleaved into: Caspase-activated pannexin-1 (Caspase-activated PANX1)]

Synonym: Panx1, Px1

UniProt ID: P60570

UniProt Link: www.uniprot.org/uniprotkb/P60570/entry

Species Source: Rat

Expression System: HEK293T eukaryotic cell expression system Sequence

Length: 426 AA

Molecular Weight: 48 KD

Protein Tag: C-terminal His6

2. Amino Acid Sequence

MAIAHLATEYVFSDFLLKEPTEPKFKGLRLELAVDKMVTCTIAVGLPLLLISLAFAQEISIGTQISCFSPSS
FSWRQAAFVDSYCWAQVQKNSLQSESGNLPLWLHKFFPYILLFFAILLYLPALFWRFAAAPHLCSD
LKFIMEELDKVYNRAIKAAKSARDLDRDGPDPGVTENVGQSLWEISESHFKYPIVEQYLKTKKNSS
HLIMKYISCRVTFVAVLLACIYLSYYFSLSSLSDEFCLCSIKSGVLRNDSTIPDSFQCKLIAVGIFQLLSLI
NLLVYALLVPVVIYTLFVPFRQKTDVLKVYEILPTFDVLHFKSEGYNDLSLYNLFLEENISELKSYSKCLK
VLENIKSNGQGIDPMLLLTNLGMIMDKVIDGKVPMSLQTKGEDQGSQRMDFKDLDSLSETAANNGEK
NSRQRLNSSC

3. Buffer Composition

Liquid format: PBS-based buffer containing 50% glycerol. Glycerol concentration can be customized upon customer request; please state special requirements when placing your order.

Lyophilized format: Buffer before lyophilization is PBS supplemented with 6% trehalose.

4. Storage Conditions

Upon receipt, store the product at -20 °C or -80 °C. Aliquot the product for on-demand use to preserve protein activity and prevent denaturation and inactivation caused by repeated freeze-thaw cycles.

5. Product Description

This product is recombinant Pannexin-1 [Cleaved into: Caspase-activated pannexin-1 (Caspase-activated PANX1)] produced using the HEK293T eukaryotic cell expression system. It is suitable for in-vitro functional assays, protein-protein interaction studies, antibody preparation and other biomedical research applications.

Protein Function: Ion channel involved in a variety of physiological functions such as blood pressure regulation, apoptotic cell clearance and oogenesis (By similarity). Forms anion-selective channels with relatively low conductance and an order of permeabilities: nitrate>iodide>chloride>>aspartate=glutamate=gluconate (By similarity). Can release ATP upon activation through phosphorylation or cleavage at C-terminus. May play a role as a Ca(2+)-leak channel to regulate ER Ca(2+) homeostasis (By similarity).; [Caspase-activated pannexin-1]: During apoptosis, the C terminal tail is cleaved by caspases, which opens the main pore acting as a large-pore ATP efflux channel with a broad distribution, which allows the regulated release of molecules and ions smaller than 1 kDa, such as nucleotides ATP and UTP, and selective plasma membrane permeability to attract phagocytes that engulf the dying cells.

Subcellular Localization: Cell membrane ; Multi-pass membrane protein . Endoplasmic reticulum membrane ; Multi-pass membrane protein .

6. Notes

- Avoid repeated freeze-thaw cycles to maintain protein stability and biological activity.
- Please specify special buffer-composition requirements at the time of order placement.
- For research use only. Not intended for clinical diagnosis, therapeutic use or commercial manufacturing.