10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

P2RX7 / P2X7 Antibody (C-Terminus)
Rabbit Polyclonal Antibody
Catalog # ALS16429

Specification

P2RX7 / P2X7 Antibody (C-Terminus) - Product Information

Application	**WB, IHC-P, IF, ICC, E**
Primary Accession	Q99572
Reactivity	**Human, Mouse**
Host	**Rabbit**
Clonality	**Polyclonal**
Calculated MW	**69kDa KDa**
Dilution	**WB~~1:1000** **IHC-P~~N/A** **IF~~1:50~200** **ICC~~N/A** **E~~N/A**

P2RX7 / P2X7 Antibody (C-Terminus) - Additional Information

Gene ID 5027

Other Names
P2X purinoceptor 7, P2X7, ATP receptor, P2Z receptor, Purinergic receptor, P2RX7

Target/Specificity
P2RX7 antibody is human, mouse, and rat reactive. Multiple isoforms of P2RX7 are known to exist.

Reconstitution & Storage
Long term: -20°C; Short term: +4°C. Avoid repeat freeze-thaw cycles.

Precautions
P2RX7 / P2X7 Antibody (C-Terminus) is for research use only and not for use in diagnostic or therapeutic procedures.

P2RX7 / P2X7 Antibody (C-Terminus) - Protein Information

Name P2RX7

Function
ATP-gated nonselective transmembrane cation channel that requires high millimolar concentrations of ATP for activation (PubMed:17483156, PubMed:25281740, PubMed:9038151). Upon ATP binding, it rapidly opens to allow the influx of small cations Na(+) and Ca(2+), and the K(+) efflux (PubMed:17483156, PubMed:20453110,

PubMed:28235784, PubMed:39262850). Also has the ability to form a large pore in the cell membrane, allowing the passage of large cationic molecules (PubMed:17483156). In microglia, may mediate NADPH transport across the plasma membrane (PubMed:39142135). In immune cells, P2RX7 acts as a molecular sensor in pathological inflammatory states by detecting and responding to high local concentrations of extracellar ATP. In microglial cells, P2RX7 activation leads to the release of pro- inflammatory cytokines, such as IL-1beta and IL-18, through the activation of the NLRP3 inflammasome and caspase-1 (PubMed:26877061). Cooperates with KCNK6 to activate NLRP3 inflammasome (By similarity). Activates death pathways leading to apoptosis and autophagy (PubMed:21821797, PubMed:23303206, PubMed:28326637). Activates death pathways leading to pyroptosis (By similarity).

Cellular Location
Cell membrane; Multi-pass membrane protein {ECO:0000250|UniProtKB:Q64663}

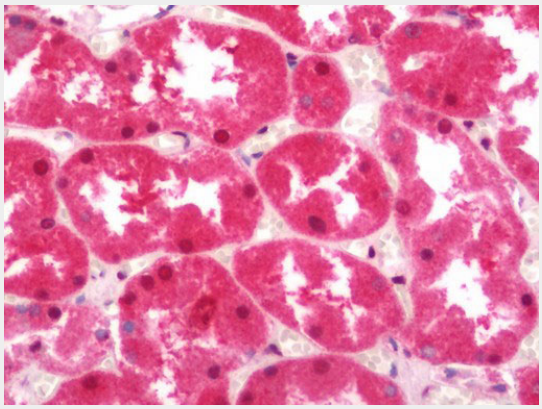
Tissue Location
Widely expressed with highest levels in brain and immune tissues.

P2RX7 / P2X7 Antibody (C-Terminus) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

P2RX7 / P2X7 Antibody (C-Terminus) - Images



Human Kidney: Formalin-Fixed, Paraffin-Embedded (FFPE)

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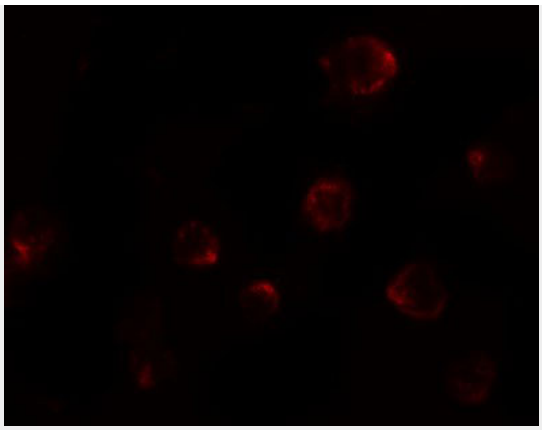
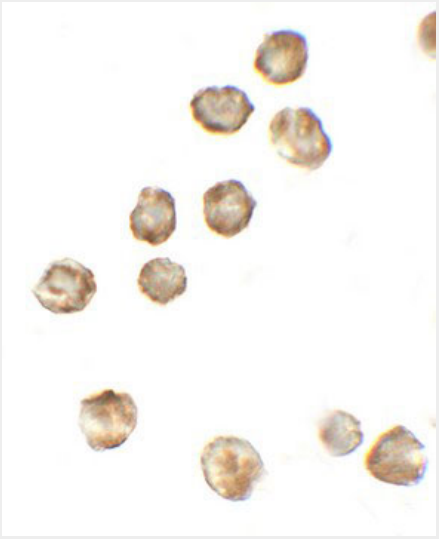


Immunofluorescence of P2RX7 in 3T3 cells with P2RX7 antibody at 20 ug/mL.



Immunocytochemistry of P2RX7 in 3T3 cells with P2RX7 antibody at 5 ug/mL.

P2RX7 / P2X7 Antibody (C-Terminus) - Background

Receptor for ATP that acts as a ligand-gated ion channel. Responsible for ATP-dependent lysis of macrophages through the formation of membrane pores permeable to large molecules. Could function in both fast synaptic transmission and the ATP-mediated lysis of antigen-presenting cells.

P2RX7 / P2X7 Antibody (C-Terminus) - References

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Buell G.N.,et al.Recept. Channels 5:347-354(1998).
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