

## **Anti-P2RX7 Antibody, clone 14H7.1 clone 14H7.1, from mouse**

Art. ID	SAF-MABN1540
Unit	EA
Deliverydetails	No Dangerous Good

### Description

P2X purinoceptor 7 (UniProt: Q99572, also known as P2RX7, ATP receptor, P2Z receptor, Purinergic receptor) is encoded by the P2RX7 gene (Gene ID: 5027) in human. P2RX7 is a multi-pass membrane protein of the P2X receptor family that is widely expressed with highest levels reported in brain and immune tissues. Eight different isoforms of P2RX7 have been described that are generated via alternative splicing. Functional P2RX7 are shown to be organized as homomeric and as heteromeric trimers. They act as receptor for ATP and serve as a ligand-gated ion channel. They are also responsible for ATP-dependent lysis of macrophages through the formation of membrane pores permeable to large molecules. They can function in both fast synaptic transmission and the ATP-mediated lysis of antigen-presenting cells. P2RX7 has two cytoplasmic domains (aa 1-25, 356-595), two transmembrane domains (aa 26-46, 335-355), and an extracellular domain (aa 47-334). P2RX7 can undergo phosphorylation that results in its inactivation. ADP-ribosylation at Arginine 125 is shown to be essential for its channel gating activity. Also, palmitoylation of several cysteines in the C-terminal cytoplasmic tail is required for efficient localization to cell surface.