

DESCRIPTION

Target:	P2X7
Target aliases:	P2X7 receptor, ATP receptor P2X7, P2Z receptor
Fc isotype:	Mouse IgG2a
Membrane proteome specificity:	Monospecific for 6,000 membrane proteins tested
Species reactivity:	Human (Others untested)
Extracellular epitope:	Yes
Fc modifications:	C-terminal Avitag ¹ , disabled Fc- γ receptor binding ²
Source:	Recombinant CHO expression; purified by Protein A chromatography
Formulation:	Endotoxin Free PBS pH 7.4, sterile-filtered
Concentration:	1 mg/ml

1. A peptide tag that can be biotinylated in vitro using the biotin ligase enzyme (BirA).
2. Mutated Fc- γ receptor binding site to minimize non-specific antibody binding.

P2X7 TARGET INFORMATION

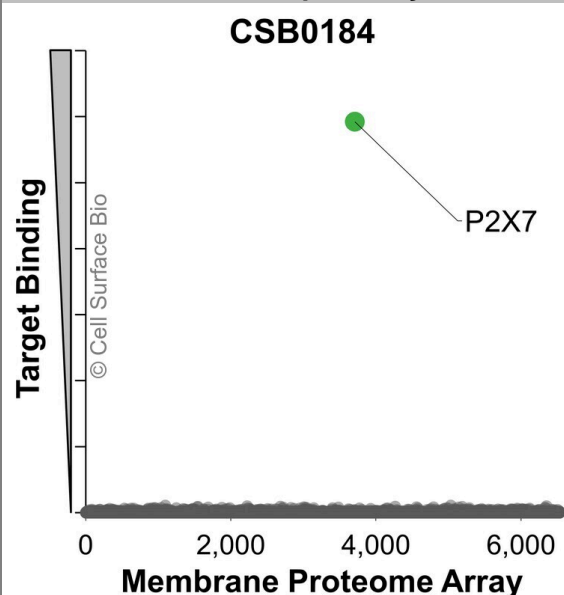
Purinergic receptor P2X 7 (P2RX7) is a ligand-gated ion channel belonging to the P2X receptor family of trimeric ATP-gated cation channels. It is predominantly expressed in immune cells such as macrophages, monocytes, and microglia, where it mediates ion flux in response to extracellular ATP and contributes to inflammatory signaling. The protein contains two transmembrane domains per subunit with intracellular N- and C-termini and a large extracellular ATP-binding loop. Sustained activation of P2RX7 can lead to the formation of large membrane pores and is associated with cytokine release and cell death pathways. (NCBI Gene: 5027, UniProtKB/Swiss-Prot: Q99572) Other names: P2X7 receptor, ATP receptor P2X7, P2Z receptor

SHIPPING AND STORAGE

Shipping:	Shipped at ambient temperature. Store at 4°C.
Stability & Storage:	Stable for 12 months from date of receipt when stored at 4°C. Avoid repeated freeze-thaw cycles.

VALIDATION DATA

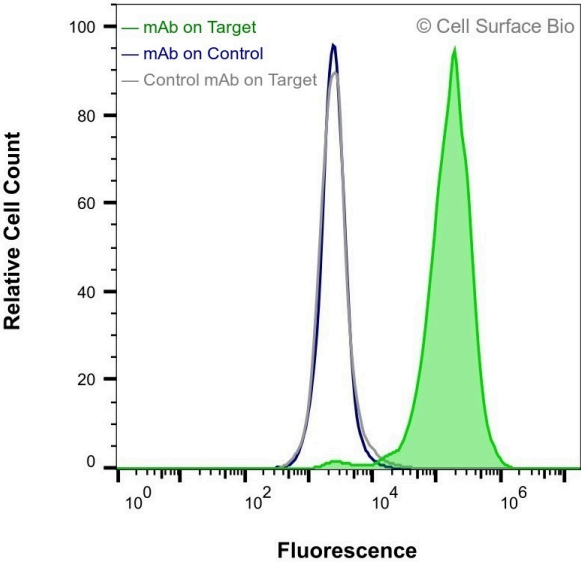
Membrane Proteome Specificity



The specificity of P2X7 Monoclonal Antibody (CSB0184) was tested on the Membrane Proteome Array™ and shown to be specific for P2X7.

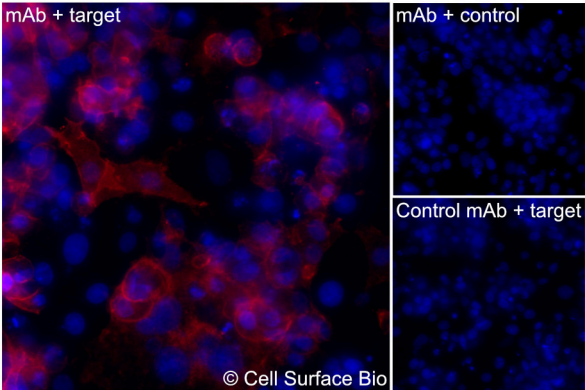
The Membrane Proteome Array™ contains 6,000 different human membrane proteins, each expressed in unfixed Human cells to ensure native conformation and post-translational modifications. The Membrane Proteome Array™ represents the industry standard for determining the binding specificity of antibodies and other protein ligands.

Applications	Conditions	Recommended concentration
Flow Cytometry, Extracellular	Live, Unpermeabilized	1 µg/ml



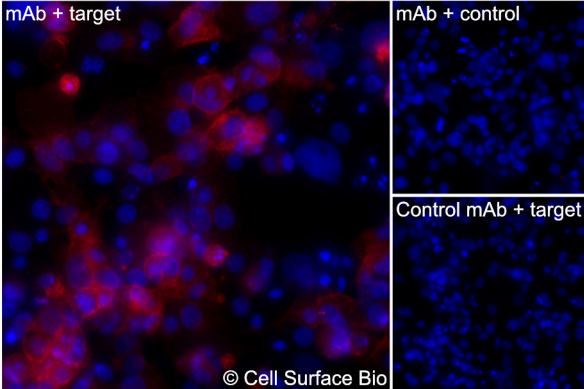
HEK-F cells transiently transfected with P2X7 were stained with P2X7 Monoclonal Antibody (CSB0184) (green) or isotype control antibody (gray), followed by AlexaFluor 647- conjugated anti- IgG secondary antibody. HEK-F cells transiently transfected with an empty control vector were also stained with P2X7 Monoclonal Antibody (CSB0184) (blue).

Applications	Conditions	Recommended concentration
Immunofluorescence, Extracellular	Fixed 4% paraformaldehyde	1 µg/ml



(Left) COS-7 cells transiently transfected P2X7 were stained with P2X7 Monoclonal Antibody (CSB0184) followed by AlexaFluor 647 anti- IgG secondary antibody (red) and DAPI (blue). (Top right) COS-7 cells transiently transfected with an empty control vector stained with P2X7 Monoclonal Antibody. (Bottom right) Isotype control: COS-7 cells transfected with P2X7 and stained with control MAb.

Applications	Conditions	Recommended concentration
Immunofluorescence, Intracellular	Fixed 4% paraformaldehyde, Permeabilized 0.1% Triton X-100	1 µg/ml



(Left) COS-7 cells transiently transfected P2X7 were permeabilized and stained with P2X7 Monoclonal Antibody (CSB0184) followed by AlexaFluor 647 anti- IgG secondary antibody (red) and DAPI (blue). (Top right) COS-7 cells transiently transfected with an empty control vector stained with P2X7 Monoclonal Antibody. (Bottom right) Isotype control: COS-7 cells transfected with {{target}} and stained with control MAb.