

DESCRIPTION

Target:	Kv1.3
Target aliases:	HGK5, HLK3, HPCN3, HUKIII, KV1.3, MK3, PCN3, Kv1.3, voltage-gated potassium channel subunit Kv1.3
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

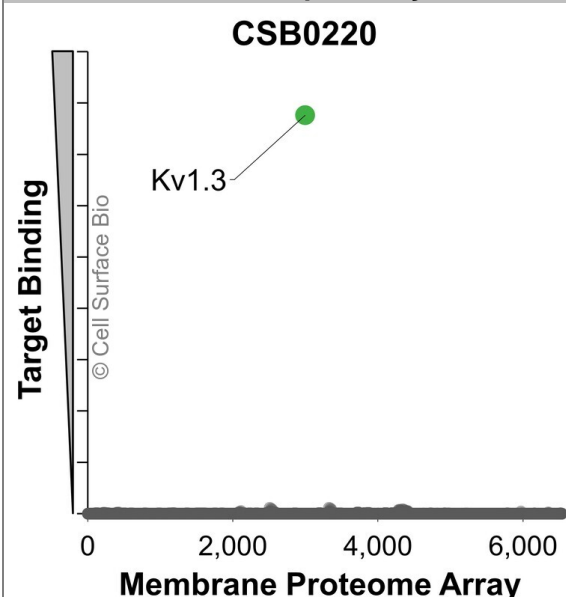
1. A peptide tag that can be biotinylated in vitro using the biotin ligase enzyme (BirA).
2. Mutated Fc-γ receptor binding site to minimize non-specific antibody binding.

Kv1.3 TARGET INFORMATION

Potassium voltage-gated channel subfamily A member 3 (KCNA3) is a voltage-gated potassium channel belonging to the Shaker-related Kv1 family. It is expressed in lymphocytes and other cell types, where it regulates membrane potential and supports calcium-dependent signaling during cellular activation. Kv1.3 is a key channel supporting the sustained activation of T cells. The functional channel is a tetramer composed of alpha subunits, each containing six transmembrane segments with a voltage-sensing domain and a central pore region. KCNA3 contributes to electrical signaling and activation processes in immune cells. (NCBI Gene: 3738, UniProtKB/Swiss-Prot: P22001) Other names: HGK5, HLK3, HPCN3, HUKIII, KV1.3, MK3, PCN3, Kv1.3, voltage-gated potassium channel subunit Kv1.3

SHIPPING AND STORAGE

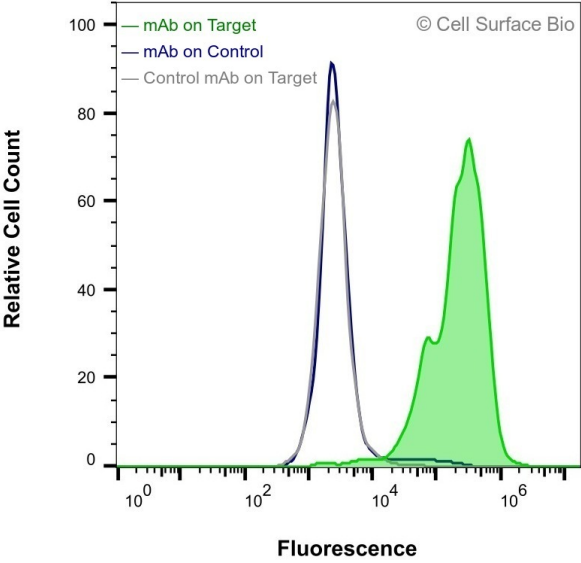
Shipping:	Shipped at ambient temperature. Store at 4°C.
Stability & Storage:	Stable for 12 months from date of receipt when stored at 4°C. Avoid repeated freeze-thaw cycles.

VALIDATION DATA
Membrane Proteome Specificity


The specificity of Kv1.3 Monoclonal Antibody (CSB0220) was tested on the Membrane Proteome Array™ and shown to be specific for Kv1.3.

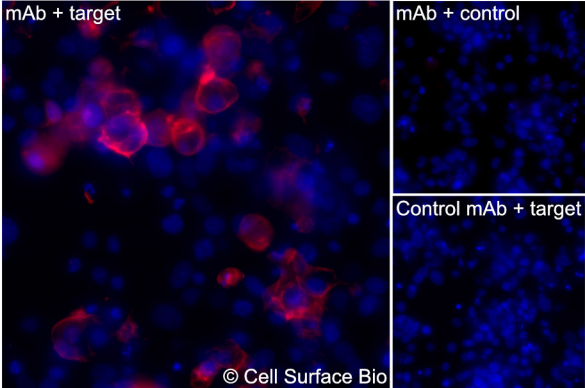
The Membrane Proteome Array™ contains 6,000 different human membrane proteins, each expressed in unfixed Human cells to ensure native conformation and post-translational modifications. The Membrane Proteome Array™ represents the industry standard for determining the binding specificity of antibodies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

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



HEK-F cells transiently transfected with Kv1.3 were stained with Kv1.3 Monoclonal Antibody (CSB0220)(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 Kv1.3 Monoclonal Antibody (CSB0220)(blue).

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



(Left) COS-7 cells transiently transfected Kv1.3 were stained with Kv1.3 Monoclonal Antibody (CSB0220) 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 Kv1.3 Monoclonal Antibody. (Bottom right) Isotype control: COS-7 cells transfected with Kv1.3 and stained with control MAb.

Applications	Conditions	Recommended concentration
Immunofluorescence, Intracellular	Fixed 4% paraformaldehyde, Permeabilized 0.1% Triton X-100	1 µg/ml
mAb + target mAb + control Control mAb + target © Cell Surface Bio (Left) COS-7 cells transiently transfected Kv1.3 were permeabilized and stained with Kv1.3 Monoclonal Antibody (CSB0220) 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 Kv1.3 Monoclonal Antibody. (Bottom right) Isotype control: COS-7 cells transfected with {{target}} and stained with control MAb.		