

DESCRIPTION

Target:	CD53
Target aliases:	TSPAN25, MOX44, AIM, Leukocyte surface antigen CD53
Fc isotype:	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.

CD53 TARGET INFORMATION

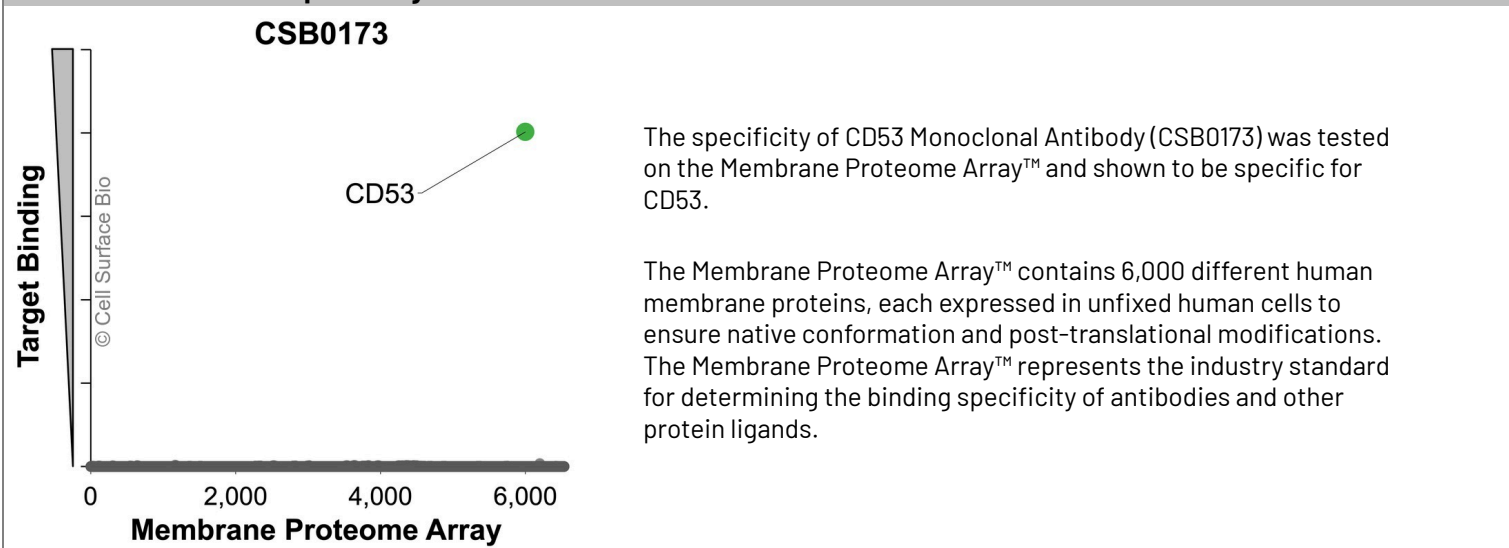
CD53 is a member of the tetraspanin protein family, defined by the presence of four transmembrane domains and a role in organizing membrane microdomains. It is expressed on a broad range of hematopoietic cells, including B cells, T cells, monocytes, macrophages, and granulocytes. CD53 contributes to cellular processes such as adhesion, migration, and immune cell activation by interacting with other surface proteins including integrins. While the precise molecular mechanisms are not fully resolved, its function is associated with the modulation of immune signaling pathways. (NCBI Gene: 963, UniProtKB/Swiss-Prot: P19397) Other names: TSPAN25, MOX44, AIM, Leukocyte surface antigen CD53

SHIPPING AND STORAGE

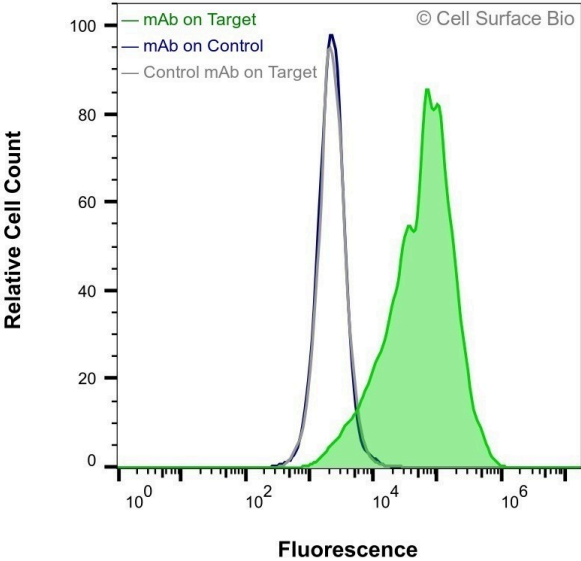
Shipping:	Shipped at ambient temperature. Store at 4°C.
Stability & Storage:	Stable for 12 months from date of receipt when stored at 4°C. Avoid repeated freeze-thaw cycles.

VALIDATION DATA

Membrane Proteome Specificity

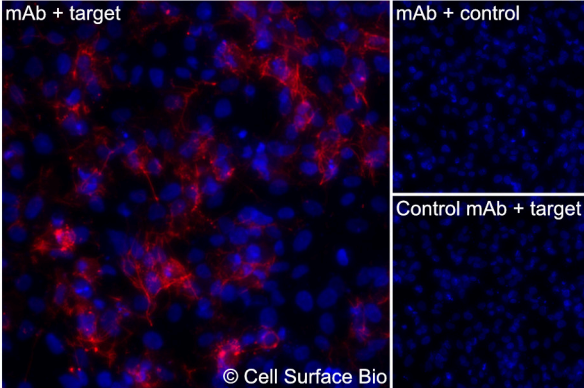


Applications	Conditions	Recommended concentration
Flow Cytometry, Extracellular	Live, Unpermeabilized	1 µg/ml



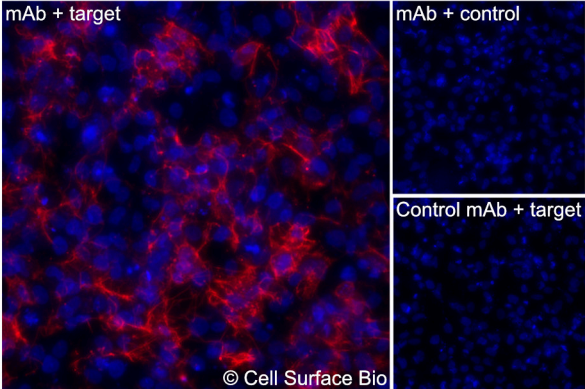
HEK-293F cells transiently transfected with CD53 were stained with CD53 Monoclonal Antibody (CSB0173) (green) or isotype control antibody (gray), followed by AlexaFluor 647- conjugated anti- IgG secondary antibody. HEK-293F cells transiently transfected with an empty control vector were also stained with CD53 Monoclonal Antibody (CSB0173) (blue).

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



(Left) JS-1 cells transiently transfected CD53 were stained with CD53 Monoclonal Antibody (CSB0173) followed by AlexaFluor 647 anti- IgG secondary antibody (red) and DAPI (blue). (Top right) JS-1 cells transiently transfected with an empty control vector stained with CD53 Monoclonal Antibody. (Bottom right) Isotype control: JS-1 cells transfected with CD53 and stained with control MAb.

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



(Left) JS-1 cells transiently transfected CD53 were permeabilized and stained with CD53 Monoclonal Antibody (CSB0173) followed by AlexaFluor 647 anti- IgG secondary antibody (red) and DAPI (blue). (Top right) JS-1 cells transiently transfected with an empty control vector stained with CD53 Monoclonal Antibody. (Bottom right) Isotype control: JS-1 cells transfected with {{target}} and stained with control MAb.