TECHNICAL DATA SHEET

CD11b MAb

Catalog Number: CSB0230

DESCRIPTION

Target:	CD11b
Target aliases:	CD11b, CR3A, MAC-1 alpha chain, complement receptor 3 alpha chain
Fc isotype:	Mouse IgG2a
Membrane proteome specificity:	Monospecific for 6,000 membrane proteins tested
Species reactivity:	Pig, Mouse, Marmoset, Human (+/-), Rabbit (+/-), Ferret (+/-)
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.

CD11b TARGET INFORMATION

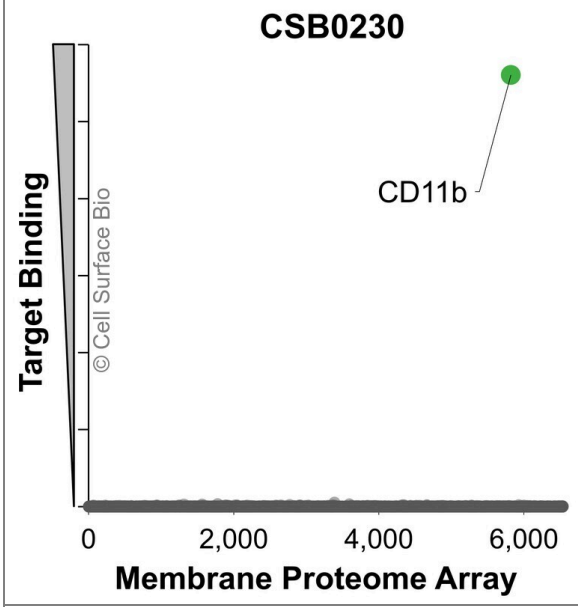
Integrin alpha M (ITGAM) is a type I transmembrane protein that belongs to the integrin alpha chain family and forms a heterodimer with integrin beta 2 (ITGB2) to create the Mac-1 (CD11b/CD18) complex. It is predominantly expressed on myeloid cells, including monocytes, macrophages, neutrophils, and some dendritic cells, where it mediates adhesion, migration, and phagocytosis through binding to ligands such as ICAMs and complement component iC3b. The extracellular region contains an inserted (I) domain responsible for ligand binding, while the short cytoplasmic tail participates in intracellular signaling and cytoskeletal interactions. ITGAM plays a key role in innate immune responses and leukocyte trafficking. (NCBI Gene: 3684, UniProtKB/Swiss-Prot: P11215) Other names: CD11b, CR3A, MAC-1 alpha chain, complement receptor 3 alpha chain

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 CD11b Monoclonal Antibody (CSB0230) was tested on the Membrane Proteome Array™ and shown to be specific for pig CD11b.

The Membrane Proteome Array™ contains 6,000 different human membrane proteins, each expressed in unfixed Avian 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.

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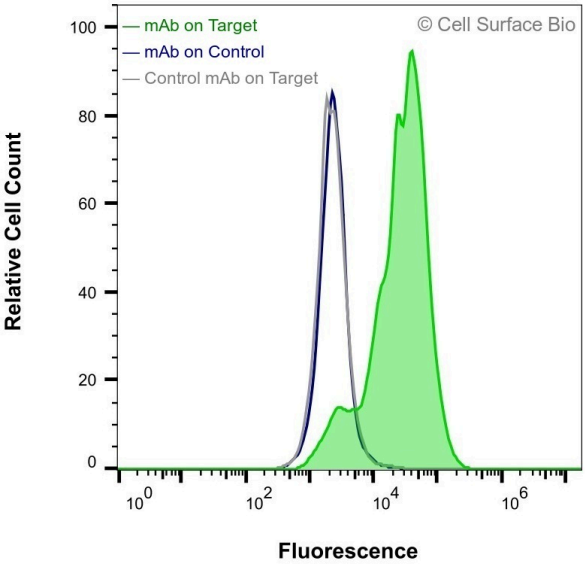
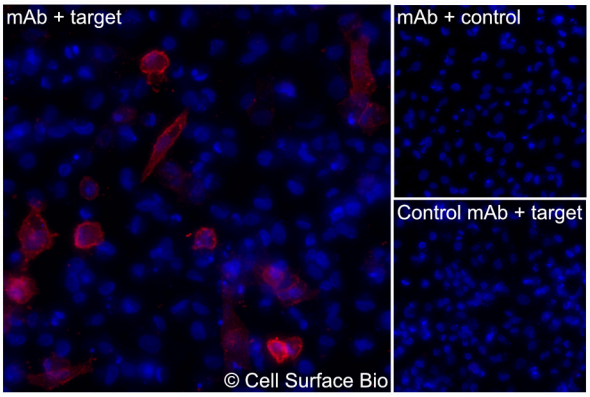
Applications	Conditions	Recommended concentration
Flow Cytometry, Extracellular	Live, Unpermeabilized	1 µg/ml



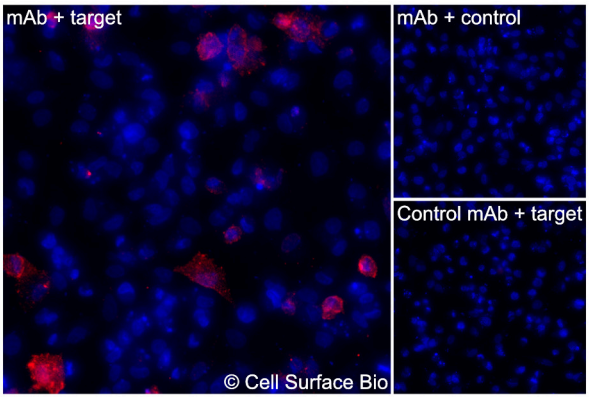
HEK-F cells transiently transfected with pig CD11b were stained with CD11b Monoclonal Antibody (CSB0230) (green) or isotype control antibody (gray), followed by AlexaFluor 647- conjugated anti- IgG secondary antibody. HEK-F cells transiently transfected with an empty control vector were also stained with CD11b Monoclonal Antibody (CSB0230) (blue).

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



(Left) JS-1 cells transiently transfected pig CD11b were stained with CD11b Monoclonal Antibody (CSB0230) 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 CD11b Monoclonal Antibody. (Bottom right) Isotype control: JS-1 cells transfected with pig CD11b 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 pig CD11b were permeabilized and stained with CD11b Monoclonal Antibody (CSB0230) 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 CD11b Monoclonal Antibody. (Bottom right) Isotype control: JS-1 cells transfected with pig {{target} and stained with control MAb.