

## Description

MHC Class I is a molecule found on all nucleated cells which recognizes peptides derived from pathogens in the cytosol. The molecules present the peptides to CD8+ T lymphocytes, which subsequently kill the infected, antigen presenting, cell.

## Technical Information

Antibody:	Mouse monoclonal, IgG <sub>2a</sub>
Specificity:	Bovine MHC Class I <sup>1</sup> , monomorphic
Cross-reactivity:	Not tested
Immunogen:	Bovine lymphocytes

## Formulation and Storage

Purity:	IgG purified by protein G affinity chromatography from serum-free cell culture supernatant.
Product Formulation:	Lyophilized from a ≥ 1 mg/ml solution in 20 mM NaH <sub>2</sub> PO <sub>4</sub> 0.15 M NaCl, 1.0% (w/v) mannitol, pH 7.4. Concentration determined by absorbance at 280 nm using an extinction coefficient of 1.4 (ε <sub>0.1%</sub> ).
Reconstitution:	Reconstitute with deionized water.
Storage:	Aliquot and store at -20°C for prolonged periods. Avoid freeze-thaw cycles. Alternatively add 0.02% (w/v) sodium azide and store at 4°C.
Country of Origin:	Hybridoma country of origin- Kenya. Subcloned and produced- USA.
Available Formats:	0.1 mg and 0.5 mg

## References

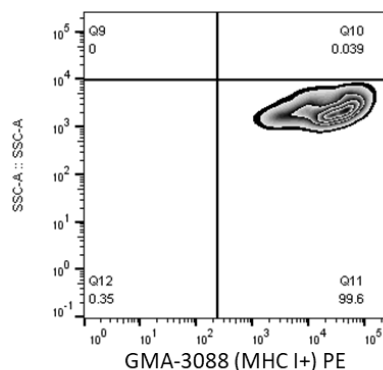
<sup>1</sup> Toye, P.G., MacHugh, N.D., Bensaid, A.M., Alberti, S., Teale, A.J., Morrison, W.I. 1990. *Immunology*. 70(1):20-6.

## Applications

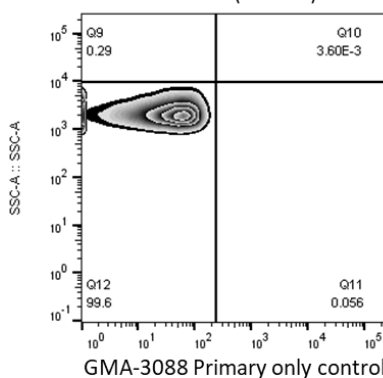
For research use only.

Flow Cytometry: Recommended concentration is 1.0 to 10 µg/mL per 1x10<sup>6</sup> PBMCs in 100 µl. Investigator should titrate for specific application.

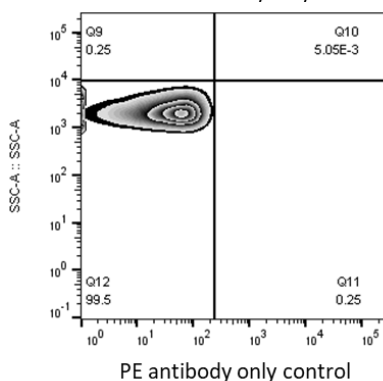
## Flow Cytometry Data



Peripheral blood was collected from a purebred Holstein cow into sodium heparin vacutainers and peripheral blood mononuclear cells (PBMCs) were isolated using Histopaque-1083.



Cells were washed in phosphate-buffered saline and 1x10<sup>6</sup> cells were stained with 6.25 µg/mL GMA-3088 and visualized with a secondary goat anti-mouse IgG<sub>2a</sub> antibody conjugated to phycoerythrin (PE).



PBMCs were also stained with GMA-3088 or the PE-conjugated antibody only, as negative controls. Cells were scanned and data collected using a Milltenyi VYB flow cytometer.

Data was analyzed with FlowJo® version 10.2 analysis software.