

Anti-Mouse CD86 (B7-2) Antibody, Clone GL-1, FITC

Rat monoclonal antibody against mouse CD86 (B7-2), FITC-conjugated

Catalog #100-1626

100 µg

0.5 mg/mL

Product Description

This monoclonal antibody reacts with mouse cluster of differentiation 86 (CD86; also known as B7-2), an ~80 kDa immunoglobulin superfamily member and a type I transmembrane glycoprotein. Both CD80 and CD86 are ligands of the T cell surface proteins CD28 and CD152 (CTLA-4); however, CD86 is expressed earlier in the immune response compared to CD80. CD86 is also involved in immunoglobulin class-switching and triggering of natural killer cell-mediated cytotoxicity. CD86 binds to CD28 to transduce co-stimulatory signals for T cell activation, proliferation, and cytokine production. CD86 can also bind to CTLA-4 with a 20- to 100-fold higher affinity than CD28 and deliver an inhibitory signal to T cells as well as down regulate the immune response. CD86 has been used as a phenotypic marker for differentiating cells. This antibody can be used as a marker to assess classically activated M1 murine macrophages.

Target Antigen:	CD86 (B7-2)
Alternative Names:	B70, B7-2, B7-2 antigen, B-lymphocyte activation antigen B7-2, Ly-58
Gene ID:	12524
Species Reactivity:	Mouse
Host Species:	Rat
Clonality:	Monoclonal
Clone:	GL-1
Isotype:	IgG2a, kappa
Immunogen:	Mouse (CBA/Ca) LPS-activated splenic B cells
Conjugate:	FITC (Fluorescein isothiocyanate)

Applications

Verified Applications: FC

Reported Applications: FC

Abbreviations: CellSep: Cell separation; ChIP: Chromatin immunoprecipitation; FA: Functional assay; FACS: Fluorescence-activated cell sorting; FC: Flow cytometry; FCXM: Flow cytometric crossmatch assay; FISH: Fluorescence in situ hybridization; ICC: Immunocytochemistry; IF: Immunofluorescence microscopy; IHC: Immunohistochemistry; IHC-F: Immunohistochemistry (frozen-tissue); IHC-P: Immunohistochemistry (paraffin-embedded); IP: Immunoprecipitation; NMR: Nuclear magnetic resonance spectroscopy; RIA: Radioimmunoassay; WB: Western blotting

Properties

Product Formulation: Phosphate-buffered saline, pH 7.2, containing 0.09% sodium azide and 0.1% gelatin

Purification: The antibody was purified by affinity chromatography and conjugated with FITC under optimal conditions. The solution is free of unconjugated FITC.

Stability and Storage: Product stable at 2 - 8°C when stored undiluted. Do not freeze. Protect product from prolonged exposure to light. Stable until expiry date (EXP) on label.

Directions for Use: For flow cytometry, the suggested use of this antibody is $\leq 1 \mu\text{g}$ per 1×10^6 cells in 100 μL . It is recommended that the antibody be titrated for optimal performance for each application.

Related Products

For a complete list of antibodies, including other conjugates, sizes, and clones, as well as related products available from STEMCELL Technologies, visit www.stemcell.com/antibodies, or contact us at techsupport@stemcell.com.

References

- Chaganty BKR et al. (2016) Trastuzumab upregulates expression of HLA-ABC and T cell costimulatory molecules through engagement of natural killer cells and stimulation of IFN γ secretion. *Oncoimmunology* 5(4): e1100790.
- Kotake K et al. (2022) Long-term administration of Tetragenococcus halophilus No. 1 over generations affects the immune system of mice. *PLoS One* 17(4): e0267473.
- Krummel MF et al. (1996) Superantigen responses and co-stimulation: CD28 and CTLA-4 have opposing effects on T cell expansion in vitro and in vivo. *Int Immunol* 8(4): 519–23.
- Sahoo NC et al. (2002) CD80 expression is induced on activated B cells following stimulation by CD86. *Scand J Immunol* 55(6): 577–84.
- Wang CJ et al. (2022) Costimulation blockade in combination with IL-2 permits regulatory T cell sparing immunomodulation that inhibits autoimmunity. *Nat Commun* 13(1): 6757.
- Xu L et al. (2022) Norcantharidin induces immunogenic cell death of bladder cancer cells through promoting autophagy in acidic culture. *Int J Mol Sci* 23(7): 3944.

PRODUCTS ARE FOR RESEARCH USE ONLY AND NOT INTENDED FOR HUMAN OR ANIMAL DIAGNOSTIC OR THERAPEUTIC USES UNLESS OTHERWISE STATED.

Copyright © 2024 by STEMCELL Technologies Inc. All rights reserved including graphics and images. STEMCELL Technologies & Design, STEMCELL Shield Design, and Scientists Helping Scientists are trademarks of STEMCELL Technologies Canada Inc. All other trademarks are the property of their respective holders. While STEMCELL has made all reasonable efforts to ensure that the information provided by STEMCELL and its suppliers is correct, it makes no warranties or representations as to the accuracy or completeness of such information.