TOLL FREE PHONE 1 800 667 0322 • PHONE +1 604 877 0713
INFO@STEMCELL.COM • TECHSUPPORT@STEMCELL.COM
FOR GLOBAL CONTACT DETAILS VISIT WWW.STEMCELL.COM

Anti-Mouse CD80 (B7-1) Antibody, Clone 16-10A1, FITC

Hamster (Armenian) monoclonal antibody against mouse CD80 (B7-1), FITC-conjugated

Catalog #100-1623 100 µg 0.5 mg/mL

Product Description

This monoclonal antibody reacts with mouse cluster of differentiation 80 (CD80), a 55 kDa type I transmembrane protein ligand that is part of the immunoglobulin superfamily. CD80 is expressed by macrophages, dendritic cells, and activated B cells. CD80 is closely related to and works in tandem with CD86 (B7-2) to prime T cells. It has high affinity for binding to two T cell surface antigens, CD28 and CD152 (CTLA-4), and can deliver an inhibitory signal to T cells. CD80 is significantly involved in immune cell activation in response to pathogens and acts as a cellular attachment receptor for adenovirus subgroup B. It is thought that CD80 interacts with a ligand on natural killer cells thus activating the natural killer cell-mediated cell death of the CD80 carrier. This phenomenon has potential as a possible cancer immunotherapy through the induction of CD80 expression on tumor cells. This antibody can be used as a marker to assess classically activated M1 murine macrophages.

Target Antigen:	CD80 (B7-1)
Alternative Names:	B7, B7-1, Cd28l, Ly-53, MIC17, TSA1
Gene ID:	12519
Species Reactivity:	Mouse
Host Species:	Hamster
Clonality:	Monoclonal
Clone:	16-10A1
Isotype:	Armenian hamster IgG
Immunogen:	CHO cell line transfected with mouse B7 (CD80)
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 ≤ 1 µg per 1 x 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

Brian IV BF et al. (2022) A dominant function of LynB kinase in preventing autoimmunity. Sci Adv 8(16): 5227.
Diao L et al. (2022) Across-cancer specific immune responses induced by nanovaccines or microvaccines to prevent different cancers and cancer metastasis. iScience 25(12): 105511.
Peraino J et al. (2012) Expression and purification of soluble porcine CTLA-4 in yeast *Pichia pastoris*. Protein Expr Purif 82(2): 270–8.
Rosina M et al. (2022) Ejection of damaged mitochondria and their removal by macrophages ensure efficient thermogenesis in brown adipose tissue. Cell Metab 34(4): 533–48.
Torihata H et al. (2004) Irradiation up-regulates CD80 expression through two different mechanisms in spleen B cells, B lymphoma cells, and dendritic cells. Immunol 112(2): 219–27.
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.