

# CD80 (B7-1) Monoclonal Antibody (2D10.4), Functional Grade, eBioscience™

Product Details	
Size	50 µg
Species Reactivity	Human
Published Species	Human, Mouse
Host/Isotype	Mouse / IgG1, kappa
Recommended Isotype Control	Mouse IgG1 kappa Isotype Control (P3.6.2.8.1), Functional Grade, eBioscience™
Class	Monoclonal
Type	Antibody
Clone	2D10.4
Conjugate	Functional Grade
Form	Liquid
Concentration	1 mg/mL
Purification	Affinity chromatography
Storage buffer	PBS, pH 7.2
Contains	no preservative
Storage conditions	4° C
RRID	AB_469011

Applications	Tested Dilution	Publications
Immunocytochemistry (ICC/IF)	-	1 Publication
Flow Cytometry (Flow)	1 µg/test	5 Publications
Functional Assay (FN)	Assay-Dependent	1 Publication

## Product Specific Information

**Description:** The 2D10.4 monoclonal antibody reacts with human CD80 (B7-1), a 60 kDa member of the Ig superfamily. CD80 is expressed by activated B cells, macrophages and dendritic cells. In addition, activated T cells express this antigen. CD80 has high affinity for binding to two T cell surface antigens, CD28 and CD152 (CTLA-4). The interaction of CD28 and CD152 with CD80 is crucial in T-B cell communication leading to activation of T and B cells, respectively.

**Applications Reported:** The 2D10.4 antibody has been reported for use in flow cytometric analysis.

**Applications Tested:** The 2D10.4 antibody has been tested by flow cytometric analysis of normal human peripheral blood cells. This can be used at less than or equal to 1 µg per test. A test is defined as the amount (µg) of antibody that will stain a cell sample in a final volume of 100 µL. Cell number should be determined empirically but can range from 10<sup>5</sup> to 10<sup>8</sup> cells/test. It is recommended that the antibody be carefully titrated for optimal performance in the assay of interest.

**Storage and handling:** Use in a sterile environment.

Filtration: 0.2 µm post-manufacturing filtered.

Purity: Greater than 90%, as determined by SDS-PAGE.

Endotoxin Level: Less than 0.001 ng/µg antibody, as determined by LAL assay.

Aggregation: Less than 10%, as determined by HPLC.

## Immunocytochemistry (1)

OncoTargets and therapy

### A DNA vaccine encoding mutated HPV58 mE6E7-Fc-GPI fusion antigen and GM-CSF and B7.1.

"Published figure using CD80 (B7-1) monoclonal antibody (Product # 16-0809-81) in Immunofluorescence"

Authors: Wang H, Yu J, Li L

**Species**  
Human

**Dilution**  
Not Cited

**Year**  
2015

## Flow Cytometry (5)

PLoS pathogens

### Response of human macrophages to gamma radiation is mediated via expression of endogenous retroviruses.

"Published figure using CD80 (B7-1) monoclonal antibody (Product # 16-0809-81) in Flow Cytometry"

Authors: Mikhailkevich N, O'Carroll IP, Tkavc R, Lund K, Sukumar G, Dalgard CL, Johnson KR, Li W, Wang T, Nath A, Iordanskiy S

**Species**  
Not Applicable

**Dilution**  
Not Cited

**Year**  
2021

Nutrients

### *Astragalus polysaccharides* (PG2) Enhances the M1 Polarization of Macrophages, Functional Maturation of Dendritic Cells, and T Cell-Mediated Anticancer Immune Responses in Patients with Lung Cancer.

"Published figure using CD80 (B7-1) monoclonal antibody (Product # 16-0809-81) in Flow Cytometry"

Authors: Bamodu OA, Kuo KT, Wang CH, Huang WC, Wu ATH, Tsai JT, Lee KY, Yeh CT, Wang LS

**Species**  
Not Applicable

**Dilution**  
Not Cited

**Year**  
2019

[View more Flow references on thermofisher.com](#)

## Functional Assay (1)

The Journal of clinical investigation

### Renal allograft rejection is prevented by adoptive transfer of anergic T cells in nonhuman primates.

Authors: Bashuda H, Kimikawa M, Seino K, Kato Y, Ono F, Shimizu A, Yagita H, Teraoka S, Okumura K

**Species**  
Not Applicable

**Dilution**  
Not Cited

**Year**  
2005

## More applications with references on thermofisher.com

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