

Product datasheet for **TA355082**

B7-1 (CD80) Mouse Monoclonal Antibody [Clone ID: 12D9]

Product data:

Product Type:	Primary Antibodies
Clone Name:	12D9
Applications:	FC, IF, IHC, WB
Recommended Dilution:	WB: 0.5-1µg/mL.IHC starting at 2-5µg/mL.IF start at 5µg/mL.
Reactivity:	Human
Host:	Mouse
Isotype:	IgG1
Clonality:	Monoclonal
Immunogen:	CD80 antibody was raised against the extracellular domain of human CD80.
Formulation:	CD80 Antibody is supplied in PBS containing 0.02% sodium azide.
Concentration:	1 mg/ml
Purification:	CD80 Antibody is supplied as protein A purified IgG1.
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Predicted Protein Size:	Predicted: 32 kDa; Observed: 50 kDa
Gene Name:	CD80 molecule
Database Link:	NP_005182 Entrez Gene 941 Human P33681



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Background:

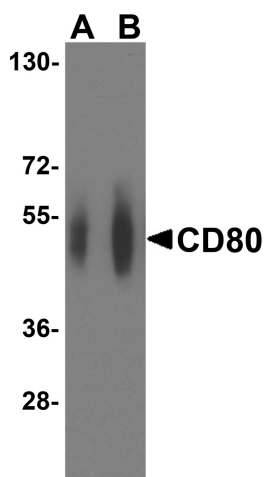
CD80 Antibody: CD80, also known as B7-1, is a type I membrane protein that is a member of the immunoglobulin superfamily. Like the related protein CD86, this protein is expressed by antigen-presenting cells, and is the ligand for two proteins at the cell surface of T cells, CD28 and the cytotoxic T-lymphocyte-associated protein 4 (CTLA-4). Binding of this protein with CD28 antigen is a costimulatory signal for activation of the T-cell and induces T-cell proliferation and cytokine production. CTLA-4 binding negatively regulates T-cell activation and diminishes the immune response (1). Blocking the CTLA-4-CD80/CD86 interaction has been shown to enhance T-cell functions in acute lymphoblastic leukemia (ALL), suggesting that this pathway may be an attractive target for future cancer immunotherapy (2).

Synonyms:

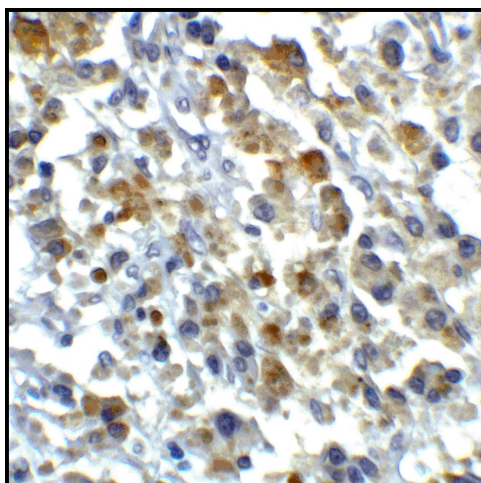
B7; BB1; CD28LG; CD28LG1; LAB7

Note:

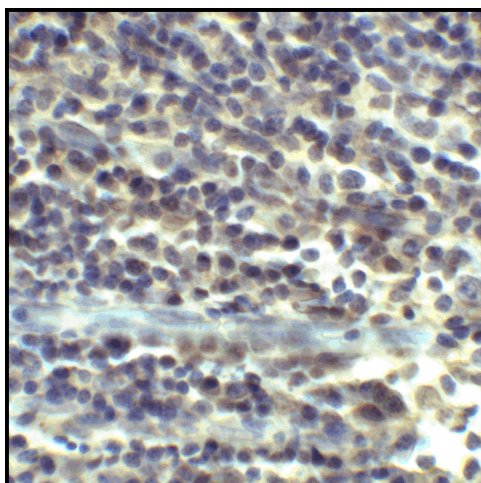
CD80 antibody can be used for detection of CD80 by Western blot at 0.5 - 1 $\mu\text{g}/\text{mL}$. Antibody can also be used for immunohistochemistry starting at 2 - 5 $\mu\text{g}/\text{mL}$. For immunofluorescence start at 5 $\mu\text{g}/\text{mL}$.

Product images:

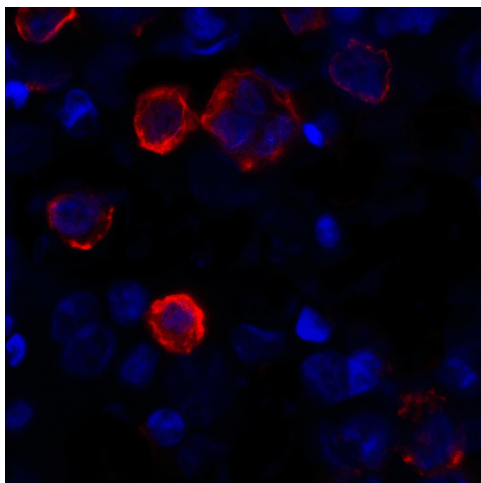
Western blot analysis of CD80 in overexpressing HEK293 cells CD80 antibody at 0.25 and 0.5 $\mu\text{g}/\text{ml}$



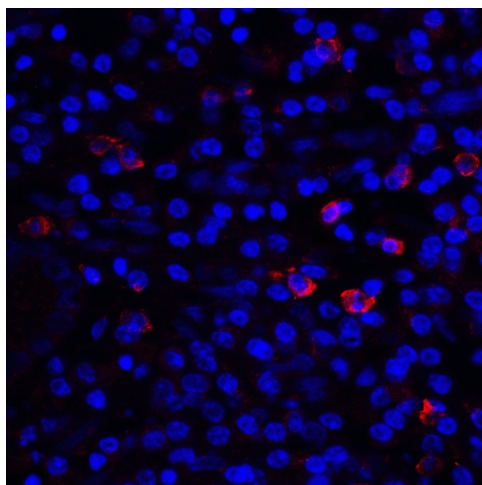
Immunohistochemistry of CD80 in human stomach carcinoma tissue with CD80 antibody at 5ug/ml.



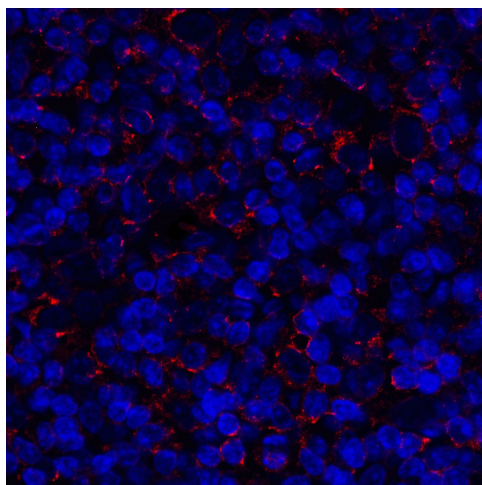
Immunohistochemistry of CD80 in human tonsil tissue with CD80 antibody at 5ug/ml.



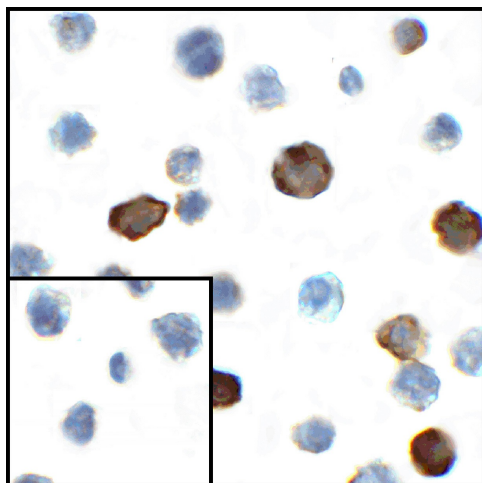
Immunofluorescence of CD80 in transfected HEK293 cells with CD80 antibody at 2ug/ml.



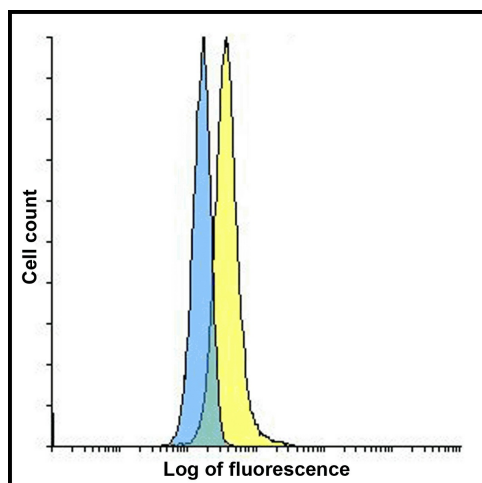
Immunofluorescence of CD80 in human stomach carcinoma tissue with CD80 antibody at 20ug/ml.



Immunofluorescence of CD80 in human tonsil tissue with CD80 antibody at 2ug/ml.



Immunocytochemistry of CD80 in transfected HEK293 cells with CD80 antibody at 1ug/ml.
Lower left: Immunocytochemistry in transfected HEK293 cells with control mouse IgG antibody at 1ug/ml.



Flow cytometry analysis of CD80 overexpressing HEK293 cells using CD80 antibody and control mouse IgG antibody at 10ug/ml. Blue: Untransfected HEK293 cells. Yellow: CD80 overexpressing HEK293 cells.