



B7-1 (MEM-233): sc-51507

BACKGROUND

T cell proliferation and lymphokine production are triggered by occupation of the TCR by antigen, followed by a costimulatory signal that is delivered by a ligand expressed on antigen presenting cells. The B7-related cell surface proteins CD80 (B7-1) and CD86 (B7-2) are expressed on antigen presenting cells, bind the homologous T cell receptors CTLA-4 (cytotoxic T lymphocyte-associated protein-4) and CD28 and trigger costimulatory signals for optimal T cell activation. CTLA-4 shares 31% overall amino acid identity with CD28 and it has been proposed that CD28 and CTLA-4 are functionally redundant. SLAMF is a novel receptor on T cells that, when engaged, potentiates T cell expansion in a CD28-independent manner. B7, also designated BB1, is another ligand or counterreceptor for CD28 and CTLA-4 that is expressed on the antigen-presenting cell.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: CD80 (human) mapping to 3q13.3-q21; Cd80 (mouse) mapping to 16 B5.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

SOURCE

B7-1 (MEM-233) is a mouse monoclonal antibody raised against CD80 fusion protein of human origin.

PRODUCT

Each vial contains 100 µg IgG₁ in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Available as phycoerythrin (sc-51507 PE) or fluorescein (sc-51507 FITC) conjugates for flow cytometry, 100 tests.

APPLICATIONS

B7-1 (MEM-233) is recommended for detection of B7-1 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)] and flow cytometry (1 µg per 1 x 10⁶ cells).

Suitable for use as control antibody for B7-1 siRNA (h): sc-29773, B7-1 shRNA Plasmid (h): sc-29773-SH and B7-1 shRNA (h) Lentiviral Particles: sc-29773-V.

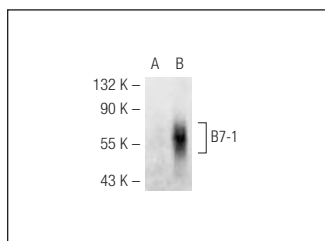
Molecular Weight of B7-1: 60 kDa.

Positive Controls: BJAB (IP) cell lysate: sc-24783 or Ramos (IP) cell lysate: sc-24797.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-mouse IgG-HRP: sc-2005 (dilution range: 1:2000-1:32,000) or Cruz Marker™ compatible goat anti-mouse IgG-HRP: sc-2031 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

DATA



B7-1 (MEM-233): sc-51507. Western blot analysis of B7-1 expression in non-transfected: sc-117752 (A) and human B7-1 transfected: sc-115617 (B) 293T whole cell lysates.

RESEARCH USE

For research use only, not for use in diagnostic procedures.