**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 CD28 and CTLA-4 (cytotoxic T lymphocyte-associated protein-4) 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. SLAM 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**


**CHROMOSOMAL LOCATION**

Genetic locus: CD28 (human) mapping to 2q33.2.

**SOURCE**

CD28 (CD28.2) is a mouse monoclonal antibody raised against human CD28 transfected murine T cell hybridoma.

**PRODUCT**

Each vial contains 200 µg IgG1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

CD28 (CD28.2) is available conjugated to agarose (sc-19655 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-19655 HRP), 200 µg/ml, for WB, (ICH)P and ELISA; to either phycoerythrin (sc-19655 PE), fluorescein (sc-19655 FITC), Alexa Fluor® 488 (sc-19655 AF488), Alexa Fluor® 546 (sc-19655 AF546), Alexa Fluor® 594 (sc-19655 AF594) or Alexa Fluor® 647 (sc-19655 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-19655 AF680) or Alexa Fluor® 790 (sc-19655 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

In addition, CD28 (CD28.2) is available conjugated to either PerCP (sc-19655 PerCP) or PerCP-Cy5.5 (sc-19655 PCPC5), 100 tests in 2 ml, for IF, IHC(P) and FCM.

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**APPLICATIONS**

CD28 (CD28.2) is recommended for detection of CD28 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)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and flow cytometry (1 µg per 1 x 10^6 cells).

Suitable for use as control antibody for CD28 siRNA (h): sc-29983, CD28 shRNA Plasmid (h): sc-29983-SH and CD28 shRNA (h) Lentiviral Particles: sc-29983-V.

Molecular Weight of CD28 monomer: 44 kDa.

Molecular Weight of CD28 homodimer: 90 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204.

**RECOMMENDED SUPPORT REAGENTS**

To ensure optimal results, the following support reagents are recommended:


**DATA**

**SELECT PRODUCT CITATIONS**


**STORAGE**

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

**RESEARCH USE**

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