

## Technical Data Sheet

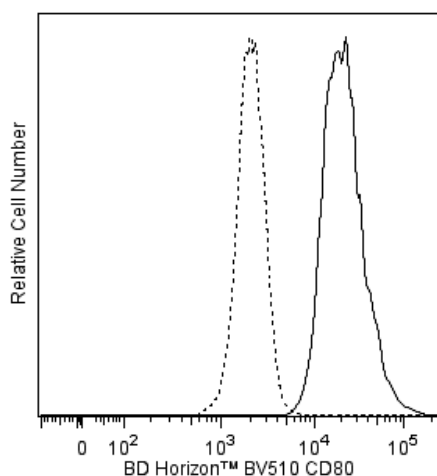
**BV510 Mouse Anti-Human CD80****Product Information**

|                         |   |
|-------------------------|---|
| <b>Material Number:</b> | <b>563084</b>   |
| <b>Alternate Name:</b>  | B7.1; B7-1; Activation B7-1 antigen; B7; BB1; CD28LG; CD28LG1; LAB7 |
| <b>Size:</b>            | 50 tests  |
| <b>Vol. per Test:</b>   | 5 µl  |
| <b>Clone:</b>           | L307.4  |
| <b>Immunogen:</b>       | Human B7-transfected L cells  |
| <b>Isotype:</b>         | Mouse (C3H) IgG1, κ   |
| <b>Reactivity:</b>      | QC Testing: Human   |
| <b>Workshop:</b>        | V B7.5  |
| <b>Storage Buffer:</b>  | Aqueous buffered solution containing BSA and ≤0.09% sodium azide.   |

**Description**

The L307.4 monoclonal antibody specifically binds to B7/BB1, a 60 kDa transmembrane glycoprotein that was clustered as CD80 in the Fifth International Workshop on Human Leukocyte Differentiation Antigens. CD80, a member of the Ig supergene family, is expressed on activated B cells, T cells, macrophages, and dendritic cells. It is the ligand for two molecules expressed on T cells, CD28 and CD152 (CTLA-4). CD80 is also expressed on activated CD4-positive and CD8-positive T cells, appearing late after activation suggesting that activated T cells may be capable of autocrine costimulation via the CD28 activation pathway. The binding of CD28 by anti-CD28 or by CD80 results in T-cell activation and a signal for IL-2 production.

The antibody was conjugated to BD Horizon™ BV510 which is part of the BD Horizon™ Brilliant Violet™ family of dyes. With an Ex Max of 405-nm and Em Max at 510-nm, BD Horizon™ BV510 can be excited by the violet laser and detected in the BD Horizon™ V500 (525/50-nm) filter set. BD Horizon™ BV510 conjugates are useful for the detection of dim markers off the violet laser.



**Flow cytometric analysis of CD80 expression on Raji cells.** Human Raji cells were stained with either BD Horizon™ BV510 Mouse Anti-Human CD80 antibody (Cat. No. 563084; solid line histogram) or with a BD Horizon™ BV510 Mouse IgG1, κ Isotype Control (Cat. No. 562946; dashed line histogram). The fluorescence histograms were derived from gated events with the forward and side light-scatter characteristics of viable cells. Flow cytometric analysis was performed using a BD LSRFortessa™ Cell Analyzer System.

**Preparation and Storage**

Store undiluted at 4°C and protected from prolonged exposure to light. Do not freeze.

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

The antibody was conjugated with BD Horizon™ BV510 under optimum conditions, and unconjugated antibody and free BD Horizon™ BV510 were removed.

**Application Notes****Application**

|                |                  |
|----------------|------------------|
| Flow cytometry | Routinely Tested |
|----------------|------------------|

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| 877.232.8995  | 800.979.9408 | 32.53.720.550 | 0120.8555.90 | 65.6861.0633 | 55.11.5185.9995         |

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## Suggested Companion Products

| Catalog Number | Name                                | Size   | Clone  |
|----------------|-------------------------------------|--------|--------|
| 554656         | Stain Buffer (FBS)                  | 500 ml | (none) |
| 562946         | BV510 Mouse IgG1, k Isotype Control | 50 µg  | X40    |

## Product Notices

1. This reagent has been pre-diluted for use at the recommended Volume per Test. We typically use  $1 \times 10^6$  cells in a 100-µl experimental sample (a test).
2. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
3. An isotype control should be used at the same concentration as the antibody of interest.
4. Please refer to [www.bdbiosciences.com/pharming/en/protocols](http://www.bdbiosciences.com/pharming/en/protocols) for technical protocols.
5. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.
6. For fluorochrome spectra and suitable instrument settings, please refer to our Multicolor Flow Cytometry web page at [www.bdbiosciences.com/colors](http://www.bdbiosciences.com/colors).
7. Brilliant Violet™ 510 is a trademark of Sirigen.

## References

Azuma M, Yssel H, Phillips JH, Spits H, Lanier LL. Functional expression of B7/BB1 on activated T lymphocytes. *J Exp Med.* 1993; 177(3):845-850. (Immunogen: Flow cytometry, Immunoprecipitation, Inhibition)

Koulova L, Clark EA, Shu G, Dupont B. The CD28 ligand B7/BB1 provides costimulatory signal for alloactivation of CD4+ T cells. *J Exp Med.* 1991; 173(3):759-762. (Biology)

Schlossman SF, Boumsell L, Gilks W, et al, ed. *Leukocyte Typing V: White Cell Differentiation Antigens*. New York: Oxford University Press; 1995. (Clone-specific)

Schwartz RH. Costimulation of T lymphocytes: the role of CD28, CTLA-4, and B7/BB1 in interleukin-2 production and immunotherapy. *Cell.* 1992; 71(7):1065-1068. (Biology)

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