SONY

# Product Data Sheet

## APC/Fire™ 750 anti-mouse CD80

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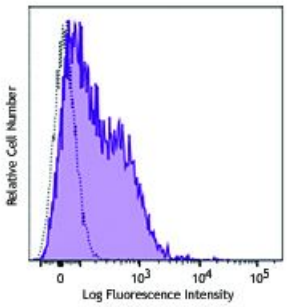
| **Catalog # / Size:** | 1123700 / 100 µg<br>1123695 / 25 µg |
| **Clone:** | 16-10A1 |
| **Isotype:** | Hamster IgG |
| **Immunogen:** | CHO cell line transfected with mouse B7 (CD80) |
| **Reactivity:** | Mouse, Other |
| **Preparation:** | The antibody was purified by affinity chromatography and conjugated with APC/Fire™ 750 under optimal conditions. |
| **Formulation:** | Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and 0.2% (w/v) BSA (origin USA). |
| **Workshop Number:** | 750 under optimal conditions. |
| **Concentration:** | 0.2 mg/ml |




LPS-stimulated (3 days) C57BL/6 splenocytes were stained with CD80 (clone 16-10A1) APC/Fire™ 750 (filled histogram) or Armenian hamster IgG APC/Fire™ 750 isotype control (open histogram).

## Applications:

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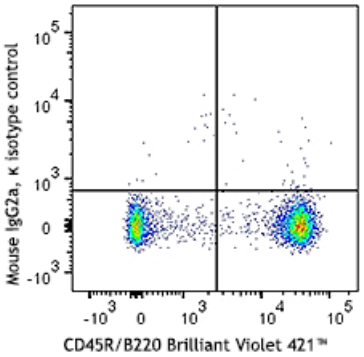
| **Applications:** | Flow Cytometry |
| **Recommended Usage:** | Each lot of this antibody is quality control tested by immunofluorescent staining with flow cytometric analysis. For flow cytometric staining, the suggested use of this reagent is 5 µl per million cells or 5 µl per 100 µl of whole blood. It is recommended that the reagent be titrated for optimal performance for each application.<br><br>* APC/Fire™ 750 has a maximum excitation of 650 nm and a maximum emission of 787 nm. |
| **Application Notes:** | Additional reported applications (for the relevant formats) include: immunoprecipitation[2], *in vitro* and *in vivo* blocking of CTLA-4 Ig to CD80 by blocking costimulation of T cells by activated B cells[2-4], and immunohistochemical staining of acetone-fixed frozen sections[1,4]. The Ultra-LEAF™ purified antibody (Endotoxin < 0.01 EU/µg, Azide-Free, 0.2 µm filtered) is recommended for functional assays (Cat. Nos. 104747-104752). |



**Application References:**

1. Harlan DM, *et al.* 1994. *P. Natl. Acad. Sci. USA* 91:3137. (IHC)
2. Razi-Wolf Z, *et al.* 1992. *P. Natl. Acad. Sci. USA* 89:4210. (Block, IP)
3. Hathcock KS, *et al.* 1994. *J. Exp. Med.* 180:631. (Block)
4. Herold KC, *et al.* 1997. *J. Immunol.* 158:984. (Block, IHC)
5. Ma XT, *et al.* 2006. *Cancer Res.* 66:1169.
6. Andoniou CE, *et al.* 2005. *Nature Immunology* 6:1011. (FC)
7. Lawson BR, *et al.* 2007. *J. Immunol.* 178:5366.
8. Turnquist HR, et al. 2007. *J. Immunol.* 178:7018.
9. Misra RS, *et al.* 2010. *J. Exp Med.* 207:1775. PubMed
10. del Rio ML, *et al.* 2011. *Transpl. Int.* 24:501. (FC) PubMed
11. Philipsen L, *et al.* 2013. *Mol Cell Proteomics.* 12:2551. PubMed

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**Description:** CD80 is a 60 kD highly glycosylated protein. It is a member of the Ig superfamily and is also known as B7-1, B7, and Ly-53. CD80 is constitutively expressed on dendritic cells and monocytes/macrophages, and inducibly expressed on activated B and T cells. The ligation of CD28 on T cells with CD80 and CD86 (B7-2) on antigen presenting cells (such as dendritic cells, macrophages, and B cells) elicits co-stimulation of T cells resulting in enhanced cell activation, proliferation, and cytokine production. CD80 appears to be expressed later in the immune response than CD86. CD80 can also bind to CD152, also known as CTLA-4, to deliver an inhibitory signal to T cells.

**Antigen References:**

1. Barclay AN, *et al.* 1997. The Leukocyte Antigen FactsBook Academic Press.
2. Linsley PS, *et al.* 1991. *J. Exp. Med.* 174:561.
3. Salomon B, *et al.* 2001. *Annu. Rev. Immunol.* 19:225.