

Analyte Specific Reagent.

Analytical and performance characteristics are not established.

SPECIFICITY

The CD80 antigen (B7, B7-1, or BB1) is a highly glycosylated single-chain transmembrane protein, structurally similar to CD86 (B7-2 or B70), with a molecular weight of 60 kDa, under non reducing conditions (1, 2). Its extracellular region is composed of two Ig-like domains. CD80 shares with CD86 the same co-receptors on T cells, CD28 and CD152 (CTLA-4) (3). CD80 and CD86 have a critical role in one costimulatory pathway involved in the prevention of antigen-specific T-cell tolerance (anergy), mediated by ligation of CD28 on T cells by its ligands, CD80 and CD86 on antigen-presenting cells (4). Interactions between CD28 on T-cells and CD80 (or CD86) on activated B cells result in enhanced T-cell activation (1, 5). CD152 (CTLA-4) binds CD80 and CD86 with an higher affinity and probably functions as a negative regulator for T-cell activation (6, 7). The MAB104 monoclonal antibody (mAb) reacts with *in vitro* activated B lymphocytes, some B cell lines, and weakly with a small proportion of non-activated B cells (8). This antibody also reacts with activated T cells but not with peripheral monocytes and T cells (3, 8, 9). The MAB104 mAb was assigned to the CD80 cluster of differentiation at the 6th International Workshop on Human Leucocyte Differentiation Antigens in Kobe, Japan, in 1996 (3).

REAGENT

IOTest CD80-APC-Alexa Fluor 750
Conjugated Antibody
PN B30643 - 0.5 mL - Liquid

Clone	MAB104
Isotype	IgG1, Mouse
Immunogen	Jijoye cells (Human Burkitt Lymphoma cell line)
Hybridoma	NS1 x balb/c
Source	Ascites fluid or supernatant of <i>in vitro</i> cultured hybridoma cells.
Purification	Affinity chromatography
Conjugation	Allophycocyanin-Alexa Fluor 750 (APC-Alexa Fluor 750)
Molar Ratio	APC-Alexa Fluor 750 / Ig : 0.5 - 1.5
Fluorescence	Excites at 633/638 nm Emits at 775 nm

REAGENT CONTENTS

This antibody is provided in phosphate-buffered saline, containing 0.1% sodium azide and 2 mg/mL bovine serum albumin. Concentration: See lot specific Certificate of Analysis at www.beckmancoulter.com.

STATEMENTS OF WARNING

1. This reagent contains 0.1% sodium azide. Sodium azide under acid conditions yields hydrazoic acid, an

extremely toxic compound. Azide compounds should be flushed with running water while being discarded. These precautions are recommended to avoid deposits in metal piping in which explosive conditions can develop. If skin or eye contact occurs, wash excessively with water.

2. Specimens, samples and all material coming in contact with them should be considered potentially infectious and disposed of with proper precautions.
3. Never pipet with mouth and avoid contact of samples with skin and mucous membranes.
4. Do not use antibody beyond the expiration date on the label.
5. Do not expose reagents to strong light during storage or incubation.
6. Avoid microbial contamination of reagents or incorrect results might occur.
7. Use good laboratory practices when handling this reagent.
8. Any change in the physical appearance of the reagents may indicate deterioration and the reagent should not be used.

STORAGE AND HANDLING CONDITIONS AND STABILITY

This reagent is stable up to the expiration date when stored at 2 – 8°C. Do not freeze. No reconstitution is necessary. This monoclonal antibody may be used directly from the vial. Bring reagent to 18 – 25°C prior to use.

PRECAUTIONS

Due to the tandem structure of the fluorochrome, APC-Alexa Fluor 750 also emits light at 660 nm. This secondary emission peak varies from lot-to-lot of APC-Alexa Fluor 750. Therefore, for multi-color analysis, the compensation matrix should be carefully checked when changing the lot of a APC-Alexa Fluor 750-conjugate.

SELECTED RESEARCH REFERENCES

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5. June.C.H., Ledbetter, J.A., Linsley, P.S., Thompson, C.B., "Role of the CD28 receptor in T-cell activation", 1990, Immunol. Today, 11, 211-216
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7. Linsley, P.S., Golstein, P., "Lymphocyte activation: T-cell regulation by CTLA-4", 1996, Curr. Immunol, 6, 398-400.
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9. Vallé, A., Aubry, J.P., Durand, I., Banchereau, J., "IL-4 and IL-2 upregulate the expression of antigen B7, the B cell counterstructure to T cell CD28: an amplification mechanism for T-B cell interactions", 1991, Int. Immunol., 3, 3, 229-235.

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