MONOCLONAL ANTIBODY

CD81 (TAPA-1)

| Cat. No. | Form | Quantity | Presentation |
|----------|----------|-----------|--------------|
| 1605 | Purified | 0.2 mg | Freeze-dried |
| 2579 | PE | 100 tests | Liquid 2mL |

Clone

JS64

Isotype

lgG2a κ (mouse)

Immunogen

Burkitt's lymphoma cell line: Ramos.

Hybridoma

P3/NS1/1-Ag4-1 x Balb/c spleen cells.

Specificity

The molecular weight of the recognized antigen is 23 kDa (reducing conditions).

The TAPA-1 molecule (Target of an anti-proliferative antibody) is a member of TM4 superfamily of antigens (tetraspans superfamily) CD81 antigen is not glycosylated it's tissue distribution is broad, and this antigen might be present in some cases as part of multimolecular complexes in association with other members of the TM4 superfamily (CD37, CD53, etc...).

The JS64 monoclonal antibody reacts with the majority of normal lymphocytes, monocytes and eosinophils, but not with platelets or other granulocytes.

JS64 reacts with both resting and activated T-lymphocytes.

JS64 has been assigned to the CD81 cluster of differentiation at the Vth International Workshop on Human Leukocyte Differentiation Antigens in Boston (1993) (5).

Applications

Fluorescent microscopy or flow cytometry

Identification of eosinophils from a granulocyte subpopulation

Blocking of in-vitro B-cell proliferation (5).

Buffer

Freeze-dried form: 1 mg/mL bovine serum albumin in phosphate-buffered saline.

Liquid form: 2 mg/mL bovine serum albumin in phosphate-buffered saline

containing 0 1% sodium azide.

November 19, 1997

Conjugation

PE.

R-phycoerythmn (PE) is conjugated at 0.7-1 mole of PE per mole of IgG

Excitation wavelength: 488 nm

Maximum emission wavelength 575 nm

Main emission color: Orange-red

Reconstitution and Storage

The freeze-dried form may be stored at 2-8°C until the expiration date. Reconstitute with 1 mL of distilled water No preservative has been added. The reconstituted form may be stored at -20°C until the expiration date Aliquotting is suggested to avoid multiple freeze-thaw cycles. The addition of sodium azide at 0 1% (w/v) is recommended for storage of the reconstituted form of up to one month at 2-8°C

The conjugated form should not be frozen and should be stored in the dark at 2-8°C until the expiration date stated on the vial label

Recommended Procedures

Flow cytometry:

Freeze dried form: $2 \mu g / 5 \times 10^5$ cells / test or 100 μ L whole blood.

Liquid form: 20 μ L / 5 x 10⁵ cells / test or 100 μ L of whole blood.

References

- 1) Pesando, J M., Conrad, T., "Antibody-Induced antigenic modulation is antigen dependent: characterization of 22 proteins on a maligrant human B-cell line", 1986, <u>J Immunol</u>, 137, 11, 3689-3695.
- 2) Pesando, J.M , Abed, M., "Malignant Human B cells express two populations of p24 surface antigens", 1986, <u>J. Immunol.</u>, 136, 7, 2709-2714.
- 3) Cawley, B., Erber, W., "Immunocytochemical analysis of the B cell blind panel on lymphoid maligancies", 1993, Tissue Antigens, 42, 4, 304
- 4) Angelisova, P., et al., "Large non covalent complexes involving HLA-DR and four antigens of the tetraspans superfamily" (CD37, CD53, TAPA-1 and R2), 1993, Tissue Antigens, 42, 4, 308.
- 5) Tedder, T.F., Wagner, N., Engel, P., "CD81 Workshop report", 1995, in Leucocyte Typing V, White Cell Differentiation Antigens Schlossman, S.F., et al., Eds, Oxford University Press, p. 684-688.