

# Monoclonal Antibody CD81

PN IM1605 – Purified – Freeze-dried – 0.2 mg – Clone JS64

**For Research Use Only. Not for use in diagnostic procedures.**

## SPECIFICITY

The CD81 molecule is a single chain, 4 transmembrane domains protein (Tetraspan/TM4SF). Both the NH<sub>2</sub>- and COOH-termini are located inside the cytoplasm, and two loops of the protein sequence are exposed extracellularly. CD81 antigen is not glycosylated and its molecular weight is 26 kDa.

Its tissue distribution is broad, and this antigen may be present in some cases as multimolecular complexes, in association with other members of the TM4 superfamily (CD37, CD53) or, on the surface of B cells, in association with CD19 and/or CD21 and/or MHC class II antigens. Most B lymphocytes, at all stages of cellular differentiation, express CD81 at relatively high levels.

The JS64 monoclonal antibody (mAb) reacts with the majority of normal lymphocytes, monocytes and eosinophils whereas neutrophils and platelets are negative.

JS64 antibody has an anti-proliferative effect on some cell lines, but does not cause apoptosis.

The JS64 mAb has been assigned to the CD81 cluster of differentiation at the fifth International Workshop on Human Leucocyte Differentiation Antigens held in Boston, USA, in 1993 (1).

## REAGENT

Monoclonal Antibody CD81  
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**Clone** JS64  
**Isotype** IgG2a  $\kappa$   
**Species** Mouse  
**Immunogen** Burkitt's lymphoma cell line: Ramos  
**Hybridoma** P3-NS1/1-Ag.4.1 x Balb/c spleen cells

**Source** Ascites fluid  
**Purification** Ion exchange or affinity chromatography  
**Buffer** 1 mg/mL bovine serum albumin in phosphate-buffered saline

## APPLICATION

Studies of CD81 positive cells by flow cytometry.

## STATEMENT OF WARNINGS

1. Specimens, samples and all material coming in contact with them should be handled as if capable of transmitting infection and disposed of with proper precautions.
2. Never pipet by mouth and avoid contact of samples with skin and mucous membranes.
3. Do not use antibody beyond the expiration date on the label.
4. Avoid microbial contamination of reagents or incorrect results might occur.
5. Use good laboratory practices when handling this reagent.

## STORAGE CONDITIONS AND STABILITY

This freeze-dried form may be stored at 2 – 8°C until the expiration date stated on the vial label.

No preservative has been added.

## REAGENT PREPARATION

Depending of usage, reconstitute with 1 mL of distilled water, with or without 0.1% sodium azide (w/v).

The reconstituted form including 0.1% sodium azide may be stored for up to one month at 2 – 8°C.

The reconstituted form without sodium azide can be stored at –20°C or less, until the expiration date stated on the vial label.

In this case, aliquotting is recommended to avoid multiple freezing / thawing cycles.

## PROCEDURE

For each application, it is recommended to establish the right range of antibody dilutions to be used for the experiment.

## SELECTED RESEARCH REFERENCES

1. 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, 684-688.

## PRODUCT AVAILABILITY

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For additional information in the USA, call 800-526-7694.

Outside the USA, contact your local Beckman Coulter representative.

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