SPECIFICITY

The ligand for CD40 (CD154 or CD40L), also called TRAP (TNF Related Activation Protein), is a 33 kDa membrane glycoprotein, belonging to the TNF / NGF ligand family (1,2). Like TNF, it potentially exists both in a membrane-anchored and a soluble form (1). CD154 is undetectable on freshly isolated CD4+ T cells, although a proportion of CD8+ cells also expresses the protein (4). CD154 induces B cell proliferation and immunoglobulin secretion (4, 5). CD40 / CD154 system is predicted to function in the process of B cell selection in the germinal centre (6). CD154 is also expressed on activated platelets and triggers an inflammatory reaction of endothelial cells (7). The TRAP-1 monoclonal antibody was assigned to the CD154 cluster of differentiation at the sixth International Workshop on Human Leucocyte Differentiation Antigens in Kobe, Japan (1996) (2).

REAGENT CONTENTS

This reagent is provided in phosphate-buffered saline (PBS: 0.01 M sodium phosphate, 0.145 M sodium chloride, pH 7.2), with 0.1% sodium azide (NaN3) as preservative, and 2 mg/mL bovine serum albumin (BSA).

STATEMENT OF WARNINGS

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 pipetting 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 handled as if capable of transmitting infection and disposed of with proper precautions.

3. Never pipet by mouth and avoid contact of samples with skin and mucous membranes.

4. Do not use reagent beyond the expiration date on the vial label.

5. Minimize exposure of reagent to light during storage or incubation.

6. Avoid microbial contamination of reagent or erroneous results may occur.

7. Use good laboratory practices when handling this reagent.

STORAGE CONDITIONS AND STABILITY

This reagent is stable to the expiration date printed on the vial label when stored at 2 – 8°C in the dark. Do not freeze. Minimize exposure to light.

EVIDENCE OF DETERIORATION

Any change in the physical appearance of this PE-labeled reagent (clear, colorless to pink liquid) or any major variation in values obtained for control samples may indicate deterioration and the reagent should not be used.

REAGENT PREPARATION

No preparation is necessary. This reagent is used directly from the vial. Bring reagent to 18 – 25°C prior to use.

SELECTED RESEARCH REFERENCES


PRODUCT AVAILABILITY

IOTest CD154-PE Conjugated Antibody PN IM2216U – Liquid 2 mL – 20 µL / test* PE is licensed under patent 4,520,110 For additional information in the USA, call 800-526-7694. Outside the USA, contact your local Beckman Coulter representative. www.beckmancoulter.com

TRADEMARKS

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* 20 µL is the quantity of product sufficient to stain 5 x 10^5 cells in a standard immunofluorescence assay

Page 1 of 1 IM2216U_B 2005-10-18