CD4 (M) + CD8 (RM)

Prediluted Multiplex Cocktail (4-Step)

Control Number: 902-395DS-091317

Catalog Number: **APR 395 DS AA**

Description: 6.0 ml, prediluted

Dilution: Ready-to-use

Diluent: N/A

Intended Use:
For Research Use Only. Not for use in diagnostic procedures.

Summary and Explanation:
Studies have shown that 1) CD4 is expressed in a T-cell subset (helper/inducer) and is found in approximately 80% of thymocytes and in 45% of peripheral blood lymphocytes. 2) CD4 is expressed in the majority of T-cell lymphomas including mycosis fungoides, a common form of cutaneous T-cell lymphoma.
Studies have shown that CD8 stains cortical thymocytes (70-80%), T-cells (25-35% of mature peripheral T-cells, mostly cytotoxic T-cells); NK cells (30%, which are also CD3 negative). CD8 has been shown to be an important marker in the analysis of T-cell mediated inflammatory dermatoses and is also useful for analysis of mycosis fungoides. CD4 and CD8 have also been shown to be valuable in squamous cell cervical cancer and gastric mucosa in HIV infection. According to studies the combination of CD4(+) and CD8(-) are helpful in distinguishing mycosis fungoides and can be used in a panel of CD2(+), CD3(+) and CD7(-/+) (1-3). Multiplex IHC may also give distinct advantages if ratios and/or cell counts on a single slide are desired.

Source: Mouse monoclonal and Rabbit monoclonal

Species Reactivity: Human, others not tested

Clone: BC/1F6 +SP16

Isotype: IgG1+ Rabbit IgG

Epitope/Antigen: CD4+CD8

Cellular Localization:
CD4: (Cell surface/membrane): Brown
CD8: (Cell surface): Red

Positive Control: Tonsil or mycois fungoides

Known Applications:
Immunohistochemistry (formalin-fixed paraffin-embedded tissues)

Supplied As: Buffer with protein carrier and preservative.

Storage and Stability:
Store at 2ºC to 8ºC. Do not use after expiration date printed on vial. If reagents are stored under conditions other than those specified in the package insert, they must be verified by the user. Diluted reagents should be used promptly; any remaining reagent should be stored at 2ºC to 8ºC.

Staining Protocol Recommendations:

Peroxide Block:
(After the Primary Antibody)

Pretreatment Solution (recommended): Borg

Pretreatment Protocol:
Heat Retrieval Method:
Retrieve sections under pressure using Biocare's Decloaking Chamber, followed by a wash in distilled water; alternatively, steam tissue sections for 45-60 minutes, allow solution to cool for 20 minutes then wash in distilled water.

Protein Block (Optional): Incubate for 10-20 minutes at RT with Biocare's Background Sniper.

Primary Antibody:
Incubate for 30-60 minutes at RT. Block for 5 minutes with Biocare's Peroxidazed 1 after the primary antibody. Wash in TBS buffer.

Double Stain Detection:
Incubate for 30 minutes at RT using Biocare's MACH 2 Double Stain 2.

Staining Protocol Recommendations Cont'd:

Chromogen (1): Incubate for 5 minutes at RT when using Biocare's Betazoid DAB.

Chromogen (2): Incubate for 10-20 minutes at RT with Biocare's Vulcan Fast Red. Rinse in deionized water.

Counterstain:
Rinse with deionized water. Incubate for 30-60 seconds with hematoxylin. Rinse with deionized water. Apply Tacha's Bluing Solution for 1 minute.

Technical Note:
This antibody has been standardized with Biocare's MACH 2 Double Stain 2. It can also be used on an automated staining system. Use TBS buffer for washing steps.

Limitations:

This product is provided for Research Use Only (RUO) and is not for use in diagnostic procedures. Suitability for specific applications may vary and it is the responsibility of the end user to determine the appropriate application for its use.

Precautions:

1. This antibody contains less than 0.1% sodium azide. Concentrations less than 0.1% are not reportable hazardous materials according to U.S. 29 CFR 1910.1200, OSHA Hazard communication and EC Directive 91/155/EC. Sodium azide (NaN_3) used as a preservative is toxic if ingested. Sodium azide may react with lead and copper plumbing to form highly explosive metal azides. Upon disposal, flush with large volumes of water to prevent azide build-up in plumbing. (Center for Disease Control, 1976, National Institute of Occupational Safety and Health, 1976)
2. Specimens, before and after fixation, and all materials exposed to them should be handled as if capable of transmitting infection and disposed of with proper precautions. Never pipette reagents by mouth and avoid contacting the skin and mucous membranes with reagents and specimens. If reagents or specimens come in contact with sensitive areas, wash with copious amounts of water.
3. Microbial contamination of reagents may result in an increase in nonspecific staining.
4. Incubation times or temperatures other than those specified may give erroneous results. The user must validate any such change.
5. Do not use reagent after the expiration date printed on the vial.
6. The MSDS is available upon request and is located at http://biocare.net/support/msds/.

Technical Support:

Contact Biocare's Technical Support at 1-800-542-2002 for questions regarding this product.

References:

1. Boone SL, Guitart J, Gerami P. Follicular mycosis fungoides: a histopathologic, immunohistochemical, and genotypic review. G Ital Dermatol Nenereol 2008 Dec;143 (6):409-14.
2. Hodak E, *et al.* CD4/CD8 double-negative epidermotropic cutaneous T-cell lymphoma: an immunohistochemical variant of mycosis fungoides. J Am Acad Dermatol. 2006 Aug;55(2):276-84.
3. Shi Z, *et al.* Za Zhi. 2009 Aug;23(4):261-4. Frequency, distribution of CD4+, CD8+ T cells and expression of CD38 in gastric mucosa of HIV infections.
4. Center for Disease Control Manual. Guide: Safety Management, NO. CDC-22, Atlanta, GA. April 30, 1976 "Decontamination of Laboratory Sink Drains to Remove Azide Salts."
5. Clinical and Laboratory Standards Institute (CLSI). Protection of Laboratory workers from occupationally Acquired Infections; Approved guideline-Third Edition CLSI document M29-A3 Wayne, PA 2005

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