CD8

Format	Catalog no.	Pack size	Dilution
Concentrated	GB 311 A, C	0.1, 1.0 mL	1:50
Prediluted	GB 311 AA	6.0 mL	Ready to use

PRODUCT DESCRIPTION -

Rabbit antibody against CD8+ T cells, a subset of which is present in thymocytes, T cells, and NK cells in the bloodstream. Cortical thymocytes (70–80%), T-cells (25–35% of mature peripheral T-cells), and NK cells (30%) can be stained with the CD8 rabbit antibody. Research shows that CD8 expression is higher in anaplastic large cell lymphomas that are not the common kind but nonetheless kinase positive. One possible use for the CD4:CD8 ratio is in identifying cervical cancer patients' prognosis, while another is in differentiating mycosis fungoides from inflammatory mimics. In panels that also include CD3, CD4, CD57, and TIA-1, CD8 can be utilized.

INTENDED USE -

The CD8 [SP16] rabbit monoclonal antibody is designed for use in immunohistochemistry (IHC) as a qualitative marker in human tissues that have been fixed with formalin-fixed paraffin-embedded (FFPE). Morphological studies with appropriate controls should supplement clinical interpretation of staining or lack thereof; these findings should then be assessed by a trained pathologist in light of the patient's medical history and other diagnostic testing.

SUMMARY AND EXPLANATION -

The immunoglobulin superfamily includes the cell surface glycoprotein known as CD8. Some T-cells, thymocytes, and NK cells express CD8 as an alpha/alpha homodimer or as a disulphide-linked alpha/beta heterodimer, which is composed of two chains, alpha and beta. The alpha/beta heterodimer forms of CD8 are expressed by most CD8+ T cells. The MHC class I/peptide combination binds to CD8, which acts as a co-receptor with TCR. Although it does not bind beta chain, the HIV-2 envelope glycoprotein does bind CD8 alpha chain. Interactions between cytotoxic T-cells and target cells during antigen-specific activation may be enhanced by binding to the non polymorphic region of class I molecules; this is known as the MHC class I restricted receptor. Research has revealed that a significant portion of mature peripheral T-cells

(25-35%), specifically cytotoxic T-cells, and NK cells (30% of which are also CD3 negative), are stained with CD8.
One relevant marker for analyzing mycosis fungoides and other T-cell mediated inflammatory dermatoses is CD8.

PRINCIPLES OF PROCEDURE -

Immunohistochemistry is a multi-step method that can be used to detect antigens in cells and tissues. The primary antibody is bound to its specific epitope in the initial stage. A primary antibody can be used to identify the antigen, and then a one-step or two-step detection technique can be employed. An enzyme-labeled polymer will bind the main antibody in a one-step process. The addition of a linker antibody to attach to the primary antibody is the second stage of a two-phase process. After that, the linker antibody is bound using an enzyme-labeled polymer. As proof of these antibody binding detections, a colorimetric reaction is observed.

SOURCE - Rabbit monoclonal

SPECIES REACTIVITY - Human; others not tested

CLONE - SP16

ISOTYPE - IgG

PROTEIN CONCENTRATION - Lot specific Ig concentration is not available.

EPITOPE/ANTIGEN - CD8

CELLULAR LOCALISATION - Cell surface

POSITIVE TISSUE CONTROL - Tonsil

KNOWN APPLICATIONS -Immunohistochemistry
30-40 min. At RT. Staining of formalin-fixed tissues requires heating tissue sections in between pH 7.4 - 9.0 for 45 min at 95°C followed by cooling at room temperature for 20 minutes.

SUPPLIED AS - Buffer with protein carrier and preservative

STORAGE AND STABILITY -

Store at 2°C to 8°C. The product is stable to the expiration date printed on the label, when stored under these conditions. Do not use it after the expiration date. Diluted

reagents should be used promptly; any remaining reagent should be stored at 2°C to 8°C.

Materials required but not provided -

1) Positive tissue control - Tonsil
2) Negativecontroltissue(internalorexternal)
3) Microscopeslidesandcoverslips
4) Stainingjarsorbaths
5) Timer
6) Xyleneorxylenesubstitute
7) Ethanolorreagentalcohol
8) Deionizedordistilledwater
9) Heatingequipmentorenzymefortissuepretreatmentstep
10) Detection system
11) Chromogen
12) Wash buffer
13) Hematoxylin
14) Antibody diluents
15) Peroxide block
16) Light microscope
17) Mounting medium

LIMITATIONS-

The optimum antibody dilution and protocols for a specific application can vary. These include, but are not limited to fixation, heat-retrieval method, incubation times, tissue section thickness and detection kit used. Due to the superior sensitivity of these unique reagents, the recommended incubation times and titers listed are not applicable to other detection systems, as results may vary. The data sheet recommendations and protocols are based on exclusive use of Genebio products. Ultimately, it is the responsibility of the investigator to determine optimal conditions.