CD33

Format	Catalog No.	Pack size	Dilution
Concentrated	GB3116A,C	0.1, 1.0 mL	1:50
Prediluted	GB3116AA	6.0 mL	Ready to use

PRODUCT DESCRIPTION -

CD33, also known as Siglec-3, is a 67 kD glycosylated transmembrane receptor found on myeloid-specific cells. Historically, CD33 was exclusively utilized for flow cytometry. A CD33 for paraffin-embedded tissues has recently been developed and utilized to profile acute myelogenous leukemias. In instances of acute leukemia, the CD33 antibody demonstrated comparable outcomes by immunohistochemical analysis relative to flow cytometric analysis. The CD33 antibody was identified as a valuable marker in the evaluation of myeloid sarcomas. In standard bone marrow trephine biopsies, clone PWS44 detects myeloid and myelomonocytic hematopoiesis as well as mature macrophages; erythroid and megakaryocyte series cells are negative for CD33. In summary, the CD33 antibody may serve as a valuable marker within an antibody panel for the detection of acute leukemias, myeloid proliferative diseases, and myeloid sarcomas in paraffin-embedded tissue specimens.

INTENDED USE -

Intended for In Vitro Diagnostic Applications CD33 [PWS44] is a mouse monoclonal antibody designed for laboratory application in the qualitative detection of CD33 protein using immunohistochemistry (IHC) in formalin-fixed paraffin-embedded (FFPE) human tissues. The clinical assessment of any staining or its absence must be supplemented by morphological analyses utilizing appropriate controls and should be interpreted in conjunction with the patient's clinical history and other diagnostic evaluations by a certified pathologist.

SUMMARY AND EXPLANATION -

CD33, also known as Siglec-3, is a 67 kD glycosylated transmembrane receptor found on myeloid-specific cells. Historically, CD33 was exclusively utilized for flow cytometry. A CD33 for paraffin-embedded tissues has recently been developed and utilized to profile acute myelogenous leukemias. In instances of acute leukemia, the CD33 antibody demonstrated comparable outcomes by immunohistochemical analysis relative to flow cytometric analysis. The CD33 antibody was identified as a valuable marker in the evaluation of myeloid sarcomas. In standard bone marrow trephine biopsies, clone PWS44 stains myeloid, myelomonocytic hematopoiesis, and mature macrophages; erythroid and megakaryocyte series cells are negative for

CD33 . In conclusion, the CD33 antibody may serve as a valuable marker within an antibody panel for the identification of acute leukemias, myeloid proliferative diseases, and myeloid sarcomas in paraffin-embedded tissue specimens.

PRINCIPLE OF PROCEDURE -

Antigen detection in tissues and cells is a multi-step immunohistochemistry procedure. The first step attaches the primary antibody to its designated epitope. Following the tagging of the antigen with a primary antibody, a one-, two-, or three-step detection protocol may be utilized. The one-step approach will utilize an enzyme-conjugated polymer that attaches to the main antibody. A two-step approach will involve the addition of a secondary antibody to bind to the primary antibody. An enzyme-conjugated polymer is subsequently introduced to engage with the secondary antibody. The three-step detection protocol will include the addition of a secondary antibody to bind to the main antibody, succeeded by a linker antibody step to enhance binding efficacy. An enzyme-conjugated polymer is subsequently introduced to attach to the linker antibody. The presence of bound antibodies is demonstrated by a colorimetric response.

SOURCE - Mouse monoclonal

SPECIES REACTIVITY - Human; others not tested

CLONE- PWS44

ISOTYPE - IgG2B

PROTEIN CONCENTRATION - Call for lot specific Ig concentration.

EPITOPE/ANTIGEN - Prokaryotic recombinant protein corresponding to a region of the C2 domain on human CD33

CELLULAR LOCALISATION - Cell membrane/ cytoplasm

POSITIVE TISSUE CONTROL - :Myeloid leukemia

KNOWN APPLICATIONS - Immunohistochemistry (formalin-fixed paraffin-embedded tissues)

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

after 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) Positivetissuecontrol- Myeloidleukemia
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.