GENE BIO SOLUTION

Myeloperoxidase

Format	Catalog no.	Pack size	Dilution
Concentrated	-	-	-
Prediluted	GB 023 AA, H	6.0, 25 mL	Ready to use

PRODUCT DESCRIPTION -

One panel for immunophenotyping acute lymphoblastic leukemia in bone marrow biopsies uses the Myeloperoxidase antibody, which is a particular marker for myeloid cells. Acute myelogenous leukemia, monomyelocytic leukemia, erythroleukemia, myeloblastomas, and other hematological diseases are characterized by the presence of myeloperoxidase (MPO) in myeloblasts and immature myeloid cells. Some disease conditions, such as lung and ovarian malignancies, have been associated with aberrant MPO expression in non-myeloid cells.

INTENDED USE -

For In Vitro Diagnostic Applications Myeloperoxidase (P) is a rabbit polyclonal antibody designed for laboratory application in the qualitative detection of myeloperoxidase protein via immunohistochemistry (IHC) in formalin-fixed paraffin-embedded (FFPE) human tissues. The clinical interpretation of any staining or its absence must be supplemented by morphological studies utilizing appropriate controls and assessed in conjunction with the patient's clinical history and other diagnostic tests by a skilled pathologist.

SUMMARY AND EXPLANATION -

Rabbit anti-human myeloperoxidase is the refined immunoglobulin fraction derived from rabbit antiserum. It has been demonstrated as a particular marker for myeloid cells and has been utilized in a panel for the immunophenotyping of acute lymphoblastic leukemia in bone marrow biopsies. Myeloperoxidase is easily identified in myeloblasts and immature myeloid cells associated with acute myelogenous leukemia, progranulocytic leukemia, monomyelocytic leukemia, erythroleukemia, myeloblastomas, and various other hematological illnesses.

PRINCIPLE OF PROCEDURE -

The identification of antigens 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, either a one-step or two-step detection method may be employed. A single-step procedure will utilize a polymer tagged with an enzyme that attaches to the main antibody. A two-step approach will involve the addition of a linker antibody to connect with the main antibody. An enzyme-conjugated polymer is subsequently introduced to bind the linker antibody. The detection of bound antibodies is demonstrated using a colorimetric response.

SOURCE - Rabbit polyclonal

SPECIES REACTIVITY - Human; others not tested

CLONE - N/A

ISOTYPE - N/A

PROTEIN CONCENTRATION - Lot specific Ig concentration is not available.

EPITOPE/ANTIGEN - Myeloperoxidase

CELLULAR LOCALISATION - Cytoplasmic

POSITIVE TISSUE CONTROL - Any tissue with inflammatory process, such as colon cancer or 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 95ºC followed by cooling at room temperature for 20 minutes.

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.

Materials required but not provided -

1) Positivetissuecontrol-Anytissuewithinflammatoryprocess,suchascolon cancer or 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.