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

SPECIFICITY
The 5H10.21.5 (or 5H10) monoclonal antibody recognizes the PEN5 epitope, an NK-cell-restricted epitope, corresponding to a sulfated poly-N-lactosamine carbohydrate that can be expressed on keratan sulfate glycosaminoglycans (1). This antibody immunoprecipitates two diffuse membrane-bound glycoproteins, PEN5alpha (120-170 kDa) and PEN5beta (210-245 kDa) (1, 2). The PEN5 epitope is highly expressed on the functionally differentiated CD56dim T cells and on about one third of the CD56bright NK cells (1,2). This epitope is expressed on the majority of CD66 and CD16- peripheral blood lymphocytes, but is absent from CD3+ T cells and CD20+ B cells. Neither T- nor B-cell activation induces the cell surface expression of the PEN5 epitope. Using the 5H10 antibody, the PEN5 epitope was detected on about 40% of CD56dim decidual large granular lymphocytes (3). This antibody also recognizes tissue-infiltrating lymphocytes that are likely to be NK cells (4).

The 5H10 antibody was evaluated during the 5th (also designated as PEN5.1) (5) and the 6th (6) International Workshops on Human Leucocyte Differentiation Antigens. The PEN5 epitope is highly expressed on keratan sulfate sulfated poly-N-lactosamine carbohydrate NK-cell-restricted epitope, corresponding to a mucin-like glycoprotein selectively expressed on natural killer cells", 1995, Am. J. Pathol., 2, 146, 409-418.

3. Do not use reagent beyond the expiration date on the vial label.
4. Avoid microbial contamination of reagent or erroneous results may occur.

STORAGE CONDITIONS AND STABILITY
This reagent is stable up to the expiration date on the vial label when stored at 2-8°C. The reconstituted form may be stored at -20°C until the expiration date. Aliquoting is suggested to avoid multiple freeze-thaw cycles. The addition of sodium azide at 0.1% (w/v) is recommended for storage of the reconstituted form for up to one month at 2-8°C. Minimize exposure to light and warmth.

APPLICATIONS
For each application, it is recommended to establish the right range of antibody dilutions to be used for the experiment.


REFERENCES

PRODUCT AVAILABILITY
Monoclonal Antibody anti-PEN5
PN IM2354 – Purified – Freeze-dried
For additional information in the USA, call 800-526-7694.
Outside the USA, contact your local Beckman Coulter representative.
www.beckmancoulter.com

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