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AM26416RP-N Monoclonal Antibody to KOR-SA3544 - PE

Quantity: 50 Tests

Background: The Philadelphia chromosome (Ph1) has been implicated as the causative factor in greater than 90% of chronic myelogenous leukemia (CML), in 25–30% of adult and 2–10% of childhood acute lymphoblastic leukemia (ALL) and in rare cases of acute myelogenous leukemia (AML). The presence of the Ph in leukemic cells of ALL patients usually indicates poor prognosis and high risk. Sequential monitoring of the Ph in ALL correlates with the activity of malignant clones and predicts impending clinical relapse, and therefore is useful in guiding clinical therapeutic decisions.

Host / Isotype: Mouse / IgG1

Recommended Isotype Controls: SM10R (for use in human samples)

Clone: KOR-SA3544

Immunogen: Cell line (KOCL-22) established from bone marrow blood of patient with congenital leukemia.

Format:
State: Liquid Ig fraction
Purification: Protein A agarose
Buffer System: PBS
Preservatives: 0.09% NaN3
Stabilizers: 1% BSA
Label: PE

Applications: Flow cytometry: see protocol below.
Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.

Specificity: This monoclonal antibody KOR-SA3544 was reactive with a surface antigen expressed on Philadelphia chromosome (Ph1)-positive acute lymphoblastic leukemia (ALL) without exception (26/26 cases). The recognized antigen is a nonspecific cross-reacting antigen (NCA)-50/90 (CD66c), one of the carcinoembryonic antigen (CEA)-related glycoproteins encoded by a member of the CEA gene family.

The reactivity of this antibody has been reported as follows:
Common ALL[a] 5/38 (13.2%)
Early B precursor ALL[b] 1c/21 (4.8%)
T-ALL 0/19
B-ALL 0/6
B-CLL/HCL 0/3
Multiple myeloma 0/2
ANLL 16/56 (28.6%)
Ph1-ALL 26/26[d] (100%)
CML blastic crisis 0/9

T-NHL 0/5
B-NHL 0/4
Hodgkin's disease 0/1
CLL, chronic lymphocytic leukemia
HCL, hairy cell leukemia
NHL, non-Hodgkin's lymphoma
[a]CD10+,CD19+,HLA-DR+
[b]CD10-,CD19+,HLA-DR+
[c]One patient with 11q23 translocation.
[d]Eighteen patients with m-bcr, eight patients with M-bcr

Storage:

Store at 2-8°C.
Shelf life: One year from despatch.

General Readings:

1. Sugita K., et al. Leukemia, 13, 779-785 (1999).
2. Mori T., et al. Leukemia, 9, 1233-1239 (1995).

Protocols:

Flow cytometric analysis for whole blood cells

We usually use Falcon tubes or equivalents as reaction tubes for all steps described below.
1) Add 20 µL of the PE labeled anti-KOR-SA3544 monoclonal antibody (KOR-SA3544) into each tube.
2) Add 50 µL of whole blood into each tube. Mix well, and incubate for 30 minutes at room temperature (20~25 °C).
3) Add 1ml of washing buffer [PBS containing 2% fetal calf serum (FCS) and 0.1% NaN3] followed by centrifugation at 500 x g for 1 minute at room temperature. Remove supernatant by careful aspiration.
4) Lyse with OptiLyse C (for analysis on Beckman Coulter instruments) or OptiLyse B (for analysis on BD instruments), using the procedure recommended in the respective package inserts.
5) Add 1ml of H2O to each tube and incubate for 10 minutes at room temperature (20~25 °C).
6) Centrifuge at 500 x g for 1 minute at room temperature (20~25 °C).
7) Add 1 mL of the washing buffer followed by centrifugation at 500 x g for 1 minute at room temperature (20~25 °C). Remove supernatant by careful aspiration.
8) Resuspend the cells with 500 µL of the washing buffer and analyze by a flow cytometer.

Pictures:

Flow cytometric analysis of KORSA3544 expression on Granulocyte.Open histogram indicates the reaction of isotypic control to the cells. Shadd histogram indicates the reaction of AM26416RP-N to the cells.