**BACKGROUND**

B lymphocytes are cells that play a large role in the humoral immune response, as opposed to the cell-mediated immune response that is governed by T cells. The principal function of B lymphocytes is to make antibodies against soluble antigens although, they do not produce antibodies until they become fully activated. B lymphocytes have unique receptor proteins (referred to as the B cell receptors (BCRs)) on their surfaces that will bind to one particular antigen. BCRs are composed of membrane-bound immunoglobulin, and allow for the distinction of B lymphocytes from other types of lymphocytes, as well as being the principal proteins involved in B lymphocyte activation. The human body makes millions of different types of B lymphocytes each day that circulate in the blood and lymph nodes.

**REFERENCES**


**CHROMOSOMAL LOCATION**

Genetic locus: CD83 (human) mapping to 6p23.

**SOURCE**

B lymphocytes (Lym-1) is a mouse monoclonal antibody raised against Burkitt’s lymphoma cell line Raji of human origin.

**PRODUCT**

Each vial contains 200 µg IgG<sub>2a</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

B lymphocytes (Lym-1) is available conjugated to phycoerythrin (sc-69676 PE), 200 µg/ml, for IF, IHC(P) and FCM.

**APPLICATIONS**

B lymphocytes (Lym-1) is recommended for detection of HLA-DR10 and B cell lymphomas of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and flow cytometry (1 µg per 1 x 10<sup>6</sup> cells).

Molecular Weight of B lymphocytes: 36 kDa.

Positive Controls: BYDP whole cell lysate: sc-364388, HeLa whole cell lysate: sc-2200 or CCRF-CEM cell lysate: sc-2225.

**RECOMMENDED SUPPORT REAGENTS**

To ensure optimal results, the following support reagents are recommended:

1) Western Blotting: use m-IgG<sub>κ</sub> BP-HRP: sc-516102 or m-IgG<sub>κ</sub> BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker<sup>TM</sup> Molecular Weight Standards: sc-2035, BSA Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgG<sub>κ</sub> BP-RT: sc-516140 or m-IgG<sub>κ</sub> BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz<sup>®</sup> Hard-set Mounting Medium: sc-359850.

**DATA**

**STORAGE**

Store at 4° C. **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

**RESEARCH USE**

For research use only, not for use in diagnostic procedures.