Monoclonal Mouse Anti-Human CD20/FITC, Clone B-Ly1  Code F0799
Monoclonal Mouse Anti-Human CD20/RPE, Clone B-Ly1  Code R7013
Monoclonal Mouse Anti-Human CD20/RPE-Cy5, Clone B-Ly1  Code C7132

Analyte specific reagent. Analytical and performance characteristics are not established.

Summary and explanation

CD20 is a transmembrane, non-glycosylated protein expressed on B-cell precursors and mature B cells, but is lost following differentiation into plasma cells (1). In resting B cells, CD20 appears in a 33 kDa non-phosphorylated form. After mitogen stimulation, CD20 becomes heavily phosphorylated (35-37 kDa isoforms), and it is a dominant phosphoprotein in activated B cells and B-cell lines (2). The long N- and C-terminal ends of the protein are located on the cytoplasmic side of the membrane and only a minor portion of the protein is exposed on the cell surface (1). Antibodies reacting with CD20 cytoplasmic epitopes are designated CD20cy (2). It is suggested that CD20 plays a direct role in regulating the transmembrane conductive Ca\(^{2+}\) flux of B cells which indicates a possible function for CD20 as a regulator of proliferation and differentiation (1).

Anti-CD20, B-Ly1, was included in the Fourth International Workshop and Conference on Human Leucocyte Differentiation Antigens, and studies by a number of laboratories confirmed its reactivity with CD20 (3).

Reagent provided

F0799 is a purified monoclonal mouse antibody conjugated with fluorescein isothiocyanate isomer 1 (FITC). R7013 is a purified monoclonal mouse antibody conjugated with R-phycoerythrin (RPE). C7132 is a purified monoclonal mouse antibody conjugated with R-phycoerythrin-Cyanine 5 (RPE-Cy5).

The conjugates are provided in liquid form in buffer containing 1% bovine serum albumin (BSA) and 15 mmol/L NaN\(_3\), pH 7.2.

Isotype: IgG1, kappa. Conjugate concentration mg/L: See label on vial.

Precautions

1. Analyte specific reagent. Analytical and performance characteristics are not established.
2. For professional users.
3. This product contains sodium azide (NaN\(_3\)), a chemical highly toxic in pure form. At product concentrations, though not classified as hazardous, sodium azide may react with lead and copper plumbing to form highly explosive build-ups of metal azides. Upon disposal, flush with large volumes of water to prevent metal azide build-up in plumbing.
4. Minimize microbial contamination of reagents or increase in nonspecific staining may occur.
5. As with any product derived from biological sources, proper handling procedures should be used.
6. Wear appropriate Personal Protective Equipment to avoid contact with eyes and skin.
7. Unused solution should be disposed of according to local, State and Federal regulations.

Storage

Store in the dark at 2-8 °C. Do not use after expiration date stamped on vial. If reagents are stored under any conditions other than those specified, the conditions must be verified by the user. There are no obvious signs to indicate instability of this product. If unexpected staining is observed which cannot be explained by variations in laboratory procedures and a problem with the reagent is suspected, contact Dako Technical Support.

References