Polyclonal Rabbit Anti-Human IgD/FITC, Rabbit F(ab')\textsubscript{2}  
Polyclonal Rabbit Anti-Human IgD/RPE, Rabbit F(ab')\textsubscript{2}

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

Summary and explanation
Most B cells, with the exception of pre-B progenitor and pre-B cells, and mature plasma cells, express immunoglobulin on their surface. Pre-B cells express cytoplasmic \(\mu\)-chains but no light chains, whereas the early B lymphocytes express membrane IgM only. The maturing B lymphocytes additionally produce IgD that is inserted into the cell membrane joining IgM and establishing a population of IgM+IgD+ B lymphocytes, which is the largest population of circulating B lymphocytes in man. Subsequent re-arrangement of the constant region of the immunoglobulin heavy chain genes results in cells expressing membrane IgG or IgA, initially in concert with IgM or IgD. Antigen exposure activates the production of these cells. They may evolve from less mature B precursors in a primary response, or from memory cells in a secondary response.

Anti-IgD reacts with the \(\delta\)-chains of human IgD. The specificity has been ascertained as described below.

To obtain maximum sensitivity, the crossed immunoelectrophoresis and ELISA specificity test were performed prior to affinity purification and pepsin degradation.

In crossed immunoelectrophoresis only the IgD precipitation arch appears when the antibody is run against human plasma. Staining: Coomassie Brilliant Blue.

In indirect ELISA no significant reaction is observed with human IgG, IgA, IgM or with serum depleted of IgD.

In flow cytometry, when tested on human lysed whole blood, Anti-IgD labels a subpopulation of the CD19-positive cells.

Reagent provided
F0189 and R5112 are conjugated F(ab')\textsubscript{2} fragments of an affinity-isolated polyclonal rabbit antibody preparation. The conjugates are provided in liquid form in buffer containing 1% bovine serum albumin (BSA) and 15 mmol/L NaN\textsubscript{3}, pH 7.2.

Conjugate concentration g/L: See label on vial.

Preparation
1. The antibody used for FITC and RPE conjugation has been solid-phase absorbed with human plasma proteins to remove unwanted antibodies.
2. The absorbed antibody has been further purified by affinity chromatography on a column with human IgD.
3. The affinity-isolated antibody has then been degraded with pepsin and the F(ab')\textsubscript{2} fragment isolated by gel filtration.
4. Finally, the F(ab')\textsubscript{2} fragment has been conjugated with fluorescein isothiocyanate isomer 1 or R-phycoerythrin.

Immunogen
IgD isolated from a human serum pool.

Precautions
1. Analyte specific reagent. Analytical and performance characteristics are not established.
2. For professional users.
3. This product contains sodium azide (NaN\textsubscript{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. As with any product derived from biological sources, proper handling procedures should be used.
5. Wear appropriate Personal Protective Equipment to avoid contact with eyes and skin.
6. 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.
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**Explanation of symbols**

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**Manufactured by:**
Dako Denmark A/S  
Produktionsvej 42  
DK-2600 Glostrup  
Tel. +45 44 85 95 00  
Fax +45 44 85 95 95  
www.dako.com

**Distributed by:**
Dako North America, Inc.  
6392 Via Real  
Carpinteria, California 93013 USA  
Tel. 805 566 6655  
Fax 805 566 6688  
Technical Support 800 424 0021  
Customer Service 800 235 5763