BECKMAN COULTER
MADE IN France

IOTest
Conjugated Antibody
Anti-Perforin
-Pacific Blue

	Specifications
Specificity	Anti-Perforin
Clone	dG9
Hybridoma	N/A
Immunogen	Purified granules from the human lymphoma cell line
Isotype	IgG2b kappa
Species	Mouse
Purification	Affinity Chromatography
Fluorochrome	Pacific Blue
Molar ratio	Pacific Blue / Ig: 6 - 8
λ excitation	405 nm
Emission Peak	455 nm
Buffer	PBS pH 7.2 plus 2 mg / mL BSA and 0.1% NaN_3

REF B46030 Liquid - 0.5 mL

Analyte Specific Reagent.
Analytical and performance characteristics are not established

REAGENTS
Concentration: See lot specific Certificate of Analysis at www.beckmancoulter.com.

WARNING AND PRECAUTIONS
1. This reagent contains 0.1% sodium azide. Sodium azide under acid conditions yields hydrazoic acid, an extremely toxic compound. Azide compounds should be flushed with running water while being discarded. These precautions are recommended to avoid deposits in metal piping in which explosive conditions can develop. If skin or eye contact occurs, wash excessively with water.
2. Specimens, samples and all material coming in contact with them should be considered potentially infectious and disposed of with proper precautions.
3. Never pipet by mouth and avoid contact of samples with skin and mucous membranes.
4. Do not use antibody beyond the expiration date on the label.
5. Do not expose reagents to strong light during storage or incubation.
6. Avoid microbial contamination of reagents or incorrect results might occur.
7. Use good laboratory practices when handling this reagent.
8. Any change in the physical appearance of the reagents may indicate deterioration and the reagent should not be used.

GHS HAZARD CLASSIFICATION
Not classified as hazardous

STORAGE AND HANDLING CONDITIONS AND STABILITY
This reagent is stable up to the expiration date when stored at 2 – 8°C. Do not freeze.

No reconstitution is necessary. This monoclonal antibody may be used directly from the vial. Bring reagent to 18 – 25°C prior to use.

CONTENTS
Sodium azide preservative may form explosive compounds in metal drain lines. See NIOSH Bulletin: Explosive Azide Hazard (8/16/76).

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To avoid the possible build-up of azide compounds, flush wastepipes with water after the disposal of undiluted reagent. Sodium azide disposal must be in accordance with appropriate local regulations.

SPECIFICITY

Perforin is a 70 kD post-translationally N-glycosylated modified cytolytic protein (1). Following synthesis and post-translational modifications, perforin monomers are packaged into lysosome-like cytoplasmic granules of cytotoxic T lymphocytes (CTLs) and natural killer (NK) cells. Both types of cells kill their cellular targets by mechanisms that require direct contact between the effector and target cells (2). Cytoplasmic granule toxins, predominantly perforin, and a family of structurally related serine proteases (granzymes) with various substrate specificities are secreted by exocytosis and together induce apoptosis of the target cell (2, 3). Perforin is one of the major effector molecules used by cytotoxic T cells and NK cells to mediate targeted cell lysis. The dG9 monoclonal antibody is used for recognizing human perforin (4, 5)

TRADEMARKS

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Pacific Blue is a trademark of Molecular Probes, Inc.

ADDITIONAL INFORMATION

For additional information, or if damaged product is received, call Beckman Coulter Customer Service at 800-526-7694 (USA or Canada) or contact your local Beckman Coulter Representative.

REFERENCES

1. Liu, C.C.; Walsh, C.M. and Young, J.D., Perforin: structure and function, Immunology Today (1995), 16, 184-201.
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3. Tschopp, J.; Masson, D. and Stanley, K. Structural/functional similarity between proteins involved in complement and cytotoxic T-lymphocyte-mediated cytolysis, Nature (1986), 322, 831-834.
4. Rutella, S.; Rumi,C.; Lucia, M.B.; Etuk, B.; Cauda, R. and Leone, G., Flow cytometric detection of perforin in normal human lymphocyte subpopulations defined by expression of activation/differentiation antigens, Immunology Letters (1998), 60, 51–55.
5. Hersperger, A.H., Makedonas, G. and Betts, M.R., Flow Cytometric Detection of Perforin Upregulation in Human CD8 T cells, Cytometry Part A (2008), 73A, 1050-1057.

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