DiagNano™ CD3 Magnetic Quantum Dots, 640 nm Emission Peak

Cat.No: DNQ-CQ006

DESCRIPTION

Description	DiagNano™ CD3 Magnetic Quantum Dot Beads, 640 nm Emission Peak is a dual-purpose reagent, which combines quantum dots and superparamagnetic iron oxide particles within the same nanoparticle. Cells labeled with this product targeting specific antigens will be both fluorescent and magnetic. Therefore, after labeling cells of interest, one can look at the feed to determine the percent positive fluorescently via flow cytometry, and then place the labeled cells in a magnetic separator and analyze both the magnetic (for the enrichment) and the nonmagnetic (for the depletion) of targeted cells without the need for further fluorescent labeling. The UCHT1 antibody conjugated to this product reacts with the 20 kDa CD3ε subunit of the human T cell receptor (TCR)/CD3 complex, which is expressed on the surface of ~95% of mature T cells and NKT cells, and variably on thymocytes. A majority of T cell neoplasms also express CD3. The CD3 complex, which is assembled from combinations of CD3γ, δ, ε, η, and ζ subunits, associates non-covalently with the TCR and is involved in transducing antigen recognition signals into the cytoplasm of T cells and in regulating the cell surface expression of the TCR.

APPLICATION

Application Notes	Flow Cytometry, Magnetic Separation

PRODUCT INFORMATION

Ligand	CD3 Antibody

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Number of Particles	1E+11 particles/mL
Emission Max	640 nm
Usage Statement	Suggested working dilution 15-20 µL/million cells
Reactivity	Human
Host/Isotype	Mouse/IgG1
Antibody	0.08 mg/mL, Monoclonal, Clone: UCHT1
Immunogen	Human CD3
Appearance	Liquid

STORAGE AND SHIPPING

Storage Buffer	Storage Buffer Borate, pH 7.4 with 0.5% BSA, 0.1% sodium azide
Storage	4°C do not freeze

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