

CD3 Monoclonal Antibody (SK7), Functional Grade, eBioscience™

Product Details	
Size	50 µg
Species Reactivity	Chimpanzee, Human
Published Species	Human
Host/Isotype	Mouse / IgG1, kappa
Recommended Isotype Control	Mouse IgG1 kappa Isotype Control (P3.6.2.8.1), Functional Grade, eBioscience™
Class	Monoclonal
Type	Antibody
Clone	SK7
Conjugate	Functional Grade
Form	Liquid
Concentration	1 mg/mL
Purification	Affinity chromatography
Storage buffer	0.05M sodium phosphate, pH 7.2-7.4, with 5mM EDTA
Contains	no preservative
Storage conditions	4° C
RRID	AB_1518734

Applications	Tested Dilution	Publications
Western Blot (WB)	0.1 µg/mL	-
Immunohistochemistry (IHC)	-	1 Publication
Immunohistochemistry (Frozen) (IHC (F))	-	1 Publication
Immunocytochemistry (ICC/IF)	1 µg/mL	1 Publication
Flow Cytometry (Flow)	0.25 µg/test	15 Publications
Functional Assay (FN)	Assay-Dependent	-

Product Specific Information

Description: The SK7 monoclonal antibody reacts with human and chimpanzee CD3e, a 20 kDa subunit of the TCR complex. Along with the other CD3 subunits gamma and delta, the epsilon chain is required for proper assembly, trafficking and surface expression of the TCR complex. CD3 is expressed by thymocytes in a developmentally regulated manner and by all mature T cells. The SK7 and UCHT1 monoclonal antibodies cross-block binding, suggesting recognition of overlapping epitope. In contrast, clones OKT3 and SK7 see different epitopes.

The antibody SK7 recognizes chimpanzee CD3.

Applications Reported: This SK7 antibody has been reported for use in flow cytometric analysis and has functional activities.

Applications Tested: This SK7 antibody has been tested by flow cytometric analysis of normal human peripheral blood cells. This can be used at less than or equal to 0.25 µg per test. A test is defined as the amount (µg) of antibody that will stain a cell sample in a final volume of 100 µL. Cell number should be determined empirically but can range from 10⁵ to 10⁸ cells/test. It is recommended that the antibody be carefully titrated for optimal performance in the assay of interest.

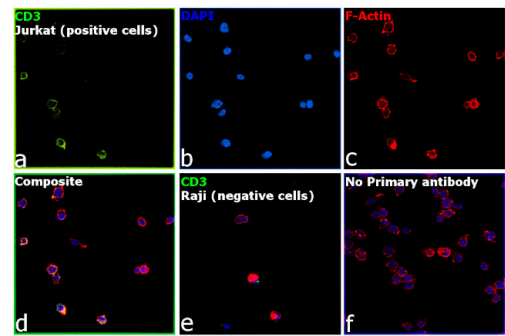
Storage and handling: Use in a sterile environment.

Filtration: 0.2 µm post-manufacturing filtered.

Purity: Greater than 90%, as determined by SDS-PAGE.

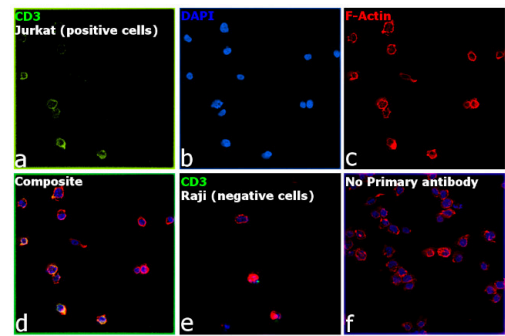
Endotoxin Level: Less than 0.001 ng/µg antibody, as determined by LAL assay.

Aggregation: Less than 10%, as determined by HPLC.



CD3 Antibody (16-0036-81)

Antibody specificity was demonstrated by the detection of differential basal expression of the target across cell models owing to their inherent genetic constitution. Immunofluorescence analysis using CD3 Monoclonal Antibody (SK7), Functional Grade, eBioscience™ (Product # 16-0036-81), showed the expression of CD3 in Jurkat cells while no expression was observed in Raji cells. {RE}

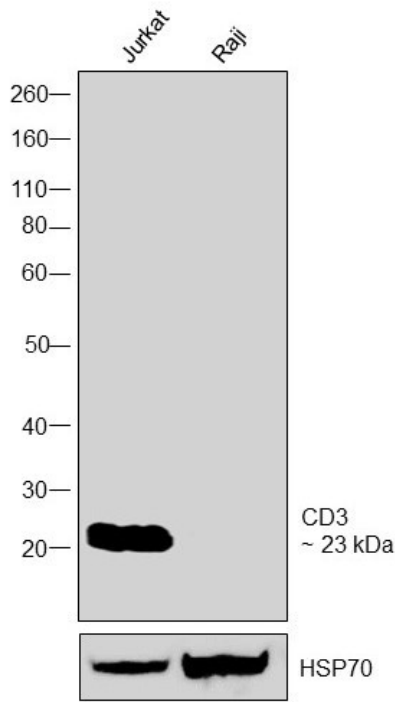


CD3 Antibody (16-0036-81) in ICC/IF

Immunofluorescence analysis of CD3 was performed using Jurkat cells. The cells were fixed with 4% paraformaldehyde for 5 minutes, permeabilized with 0.1% Triton™ X-100 for 10 minutes, and blocked with 2% BSA for 45 minutes at room temperature. The cells were labeled with CD3 Monoclonal Antibody (SK7), Functional Grade, eBioscience™ (Product # 16-0036-81) at 1 µg/mL in 0.1% BSA, incubated at 4 degree celsius overnight and then labeled with Donkey anti-Mouse IgG (H+L) Highly Cross-Adsorbed Secondary Antibody, Alexa Fluor™ Plus 488 (Product # A32766, 1:2,000 dilution), for 45 minutes at room temperature (Panel a: Green). Nuclei (Panel b: Blue) were stained with ProLong™ Diamond Antifade Mountant with DAPI (Product # P36962). F-actin (Panel c: Red) was stained with Rhodamine Phalloidin (Product # R415, 1:300). Panel d represents the merged image showing plasma membrane localization. Panel e represents Raji cells with no expression of CD3. Panel f represents control cells with no primary antibody to assess the background. The images were captured at 60X magnification.

CD3 Antibody (16-0036-81)

Antibody specificity was demonstrated by the detection of differential basal expression of the target across cell lines owing to their inherent genetic constitution. Relative expression of CD3 was observed in Jurkat cells but not in Raji cells using CD3 Monoclonal Antibody (SK7), Functional Grade, eBioscience™ (Product # 16-0036-81) in Western Blot. {RE}



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Immunohistochemistry (1)

<p>PLoS medicine</p> <p>Expansion of regulatory T cells in patients with Langerhans cell histiocytosis.</p> <p>"Published figure using CD3 monoclonal antibody (Product # 16-0036-81) in Immunohistochemistry"</p> <p>Authors: Senechal B,Elain G,Jeziorski E,Grondin V,Patey-Mariaud de Serre N,Jaubert F,Beldjord K,Lellouch A,Glorion C,Zerah M,Mary P,Barkaoui M,Emile JF,Boccon-Gibod L,Josset P,Debré M,Fischer A,Donadieu J,Geissmann F</p>	<p>Year 2007</p>
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Immunohistochemistry (Frozen) (1)

<p>The journal of histochemistry and cytochemistry : official journal of the Histochemistry Society</p> <p>A monoclonal antibody selection for immunohistochemical examination of lymphoid tissues from non-human primates.</p> <p>Authors: Kap YS,van Meurs M,van Driel N,Koopman G,Melief MJ,Brok HP,Laman JD,'t Hart BA</p>	<p>Year 2009</p>
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Immunocytochemistry (1)

<p>The Journal of biological chemistry</p> <p>Ephrin receptor A10 monoclonal antibodies and the derived chimeric antigen receptor T cells exert an antitumor response in mouse models of triple-negative breast cancer.</p> <p>"Published figure using CD3 monoclonal antibody (Product # 16-0036-81) in Flow Cytometry"</p> <p>Authors: Cha JH,Chan LC,Wang YN,Chu YY,Wang CH,Lee HH,Xia W,Shyu WC,Liu SP,Yao J,Chang CW,Cheng FR,Liu J,Lim SO,Hsu JL,Yang WH,Hortobagyi GN,Lin C,Yang L,Yu D,Jeng LB,Hung MC</p>	<p>Year 2022</p>
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Flow Cytometry (15)

<p>Frontiers in pharmacology</p> <p>Disruption of PD-1 Enhanced the Anti-tumor Activity of Chimeric Antigen Receptor T Cells Against Hepatocellular Carcinoma.</p> <p>"Published figure using CD3 monoclonal antibody (Product # 16-0036-81) in Flow Cytometry"</p> <p>Authors: Guo X,Jiang H,Shi B,Zhou M,Zhang H,Shi Z,Du G,Luo H,Wu X,Wang Y,Sun R,Li Z</p>	<p>Year 2023</p>
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