Human Ki-67/MKI67
Alexa Fluor® 350-conjugated Antibody

Recombinant Monoclonal Rabbit IgG Clone # 1297A
Catalog Number: IC7617U
100 µg

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Ki-67/MKI67 in direct ELISAs.
Source	Recombinant Monoclonal Rabbit IgG Clone # 1297A
Purification	Protein A or G purified from cell culture supernatant
Immunogen	Human Ki-67/MKI67 synthetic peptide Accession # P46013
Conjugate	Alexa Fluor 350 Excitation Wavelength: 346 nm Emission Wavelength: 442 nm
Formulation	Supplied 0.2 mg/mL in a saline solution containing BSA and Sodium Azide. See Certificate of Analysis for details. *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

APPLICATIONS

Please Note: *Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.*

	Recommended Concentration	Sample
Intracellular Staining by Flow Cytometry	0.25-1 µg/10^6 cells	Human peripheral blood mononuclear cells (PBMCs) treated with PHA were fixed and permeabilized with FlowX FoxP3 Fixation & Permeabilization Buffer Kit (Catalog # FC012)

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	**Protect from light. Do not freeze.** ● 12 months from date of receipt, 2 to 8 °C as supplied.

BACKGROUND

MKI67 (also Ki-67) is a 350-400 kDa nuclear protein that belongs to a molecular group comprised of mitotic chromosome-associated proteins. Ki-67 was originally recognized as an antigen associated with the monoclonal Ki-67 antibody raised against Hodgkin's lymphoma nuclear material. Ki-67 is contextually expressed, being potentially found in all cells that are not in the Go phase of the cell cycle. Thus, MKI67 qualifies as a cell proliferation marker. Functionally, Ki-67 is known to interact with 160 kDa Hklp2, a protein that promotes centrosome separation and spindle bipolarity. It also directly interacts with NIFK, and apparently binds to UBF, thus playing a role in rRNA synthesis. Human MKI67 is 3256 amino acids (aa) in length. It contains one FHA domain (aa 8-98), followed by at least 24 utilized Ser/Thr phosphorylation sites and sixteen 120 aa repeats (aa 1000-2928) that are interspersed with at least 90 additional utilized phosphorylation sites. There are two potential isoform variants. One isoform is 315-345 kDa in size and shows a deletion of aa 136-495, while a second isoform contains a 58 aa substitution for aa 1-513. Over aa 3120-3256, human Ki-67 shares 46% aa sequence identity with the mouse ortholog to Ki-67.

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