R&D SYSTEMS
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Mouse Ki-67/MKI67 Antibody

Antigen Affinity-purified Polyclonal Sheep IgG
Catalog Number: AF7649

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse Ki-67/MKI67 in direct ELISAs. In direct ELISAs, less than 5% cross-reactivity with recombinant human Ki-67/MKI67 is observed.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	*E. coli*-derived recombinant mouse Ki-67/MKI67 Asn3053-Ser3177 Accession # NP_001074586
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 µm filtered solution in PBS.

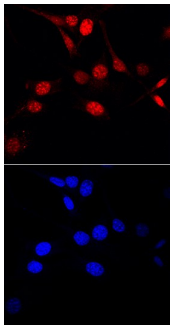
APPLICATIONS

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
Immunocytochemistry	5-15 µg/mL	See Below

DATA

Immunocytochemistry



Ki-67/MKI67 in NIH-3T3 Mouse Cell Line. Ki-67/MKI67 was detected in immersion fixed NIH-3T3 mouse embryonic fibroblast cell line using Sheep Anti-Mouse Ki-67/MKI67 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF7649) at 10 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Sheep IgG Secondary Antibody (red, upper panel; Catalog # NL010) and counterstained with DAPI (blue, lower panel). Specific staining was localized to nuclei and nucleoli. View our protocol for Fluorescent ICC Staining of Cells on Coverslips.

PREPARATION AND STORAGE

Reconstitution	Sterile PBS to a final concentration of 0.2 mg/mL.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	**Use a manual defrost freezer and avoid repeated freeze-thaw cycles.** ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

MKI67 (also Ki-67 and TSG126) is a 350-370 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. Mouse MKI67 is 3177 amino acids (aa) in length. It contains one FHA domain (aa 8-101), followed by sixteen 120 aa repeats (aa 993-2872). There are two potential isoform variants. One isoform shows a 19 aa substitution for 1120-3177, while a second isoform contains a deletion of aa 1169-1409. Over aa 3053-3177, mouse Ki-67 shares 46% and 74% aa sequence identity with the human and rat orthologs to Ki-67, respectively.

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