

PRODUCT INFORMATION



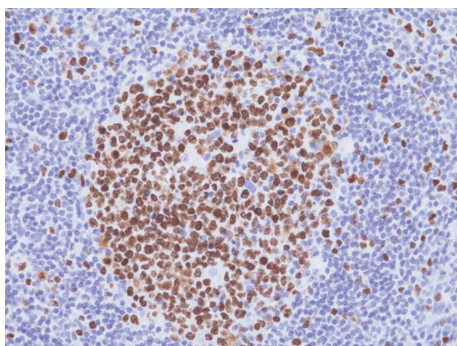
Ki-67 Rabbit Monoclonal Antibody (Clone RM521)

Item No. 42787

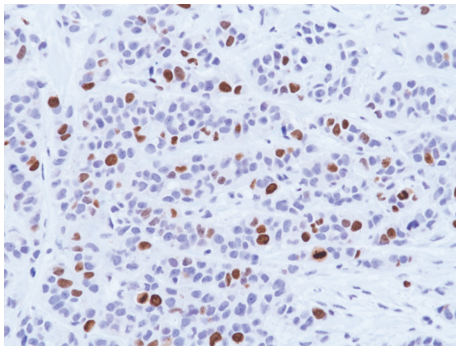
Overview and Properties

Contents:	This vial contains 100 µl of protein A-affinity purified monoclonal antibody.
Synonyms:	Antigen Ki-67, Marker of Proliferation Ki-67
Immunogen:	A peptide corresponding to the internal region of human Ki-67
Cross Reactivity:	(+) Ki-67
Species Reactivity:	(+) Human
Form:	Liquid
Storage:	-20°C (as supplied)
Stability:	≥1 year
Storage Buffer:	PBS with 50% glycerol, 1% BSA, and 0.09% sodium azide
Clone:	RM521
Host:	Rabbit
Isotype:	IgG
Applications:	immunohistochemistry (IHC) and Western blot (WB); the recommended starting dilution is 1:100-1:200 for IHC and 1:200-1:1,000 for WB. Other applications were not tested, therefore optimal working concentration/dilution should be determined empirically.

Images



Immunohistochemical staining of formalin-fixed and paraffin-embedded human tonsil tissue sections using Ki-67 Rabbit Monoclonal Antibody (Clone RM521) at a dilution of 1:100.



Immunohistochemical staining of formalin-fixed and paraffin-embedded human breast ductal carcinoma tissue sections using Ki-67 Rabbit Monoclonal Antibody (Clone RM521) at a dilution of 1:100.

WARNING
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA
This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY
Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

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CAYMAN CHEMICAL
1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA
PHONE: [800] 364-9897
[734] 971-3335
FAX: [734] 971-3640
CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM

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Description

Ki-67 is a non-histone nuclear and nucleolar protein and marker of cell proliferation encoded by *MKI67* in humans.^{1,2} It is composed of an N-terminal forkhead-associated domain, a protein phosphatase 1-binding domain, a central conserved domain, 16 concatenated direct repeats, and six C-terminal leucine- and arginine-rich motif repeats.² Ki-67 expression and localization is cell cycle-specific. It is localized to the perinuclear region during G₁, the fibrillary component of the nucleolus during interphase, and the perichromosomal layer during chromatin condensation, with Ki-67 levels increasing from the late G₁ phase to S phase and peaking at mitosis.¹ Ki-67 is associated with proliferative activity of intrinsic cell populations in tumors and is commonly used as a marker of tumor aggressiveness in patients with breast, lung, prostate, cervical, or CNS cancers.³ Ki-67 is also commonly used as a marker of adult neurogenesis.⁴ Cayman's Ki-67 Rabbit Monoclonal Antibody (Clone RM521) can be used for immunohistochemistry (IHC) and Western blot (WB) applications.

References

1. Menon, S.S., Guruvayoorappan, C., Sakthivel, K.M., *et al.* Ki-67 protein as a tumour proliferation marker. *Clin. Chim. Acta* **491**, 39-45 (2019).
2. Sun, X. and Kaufman, P.D. Ki-67: More than a proliferation marker. *Chromosoma* **127(2)**, 175-186 (2018).
3. Li, L.T., Jiang, G., Chen, Q., *et al.* Ki67 is a promising molecular target in the diagnosis of cancer (review). *Mol. Med. Rep.* **11(3)**, 1566-1572 (2015).
4. Kee, N., Sivalingam, S., and Wojtowicz, J.M. The utility of Ki-67 and BrdU as proliferative markers of adult neurogenesis. *J. Neurosci. Methods* **115(1)**, 97-105 (2002).

CAYMAN CHEMICAL
1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA
PHONE: [800] 364-9897
[734] 971-3335
FAX: [734] 971-3640
CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM