Alexa Fluor® 488 anti-mouse Ki-67 Antibody

Catalog# / Size	652417 / 25 µg 652418 / 100 µg
Clone	16A8
Regulatory Status	RUO
Other Names	KIA, proliferation-related Ki-67 antigen
Isotype	Rat IgG2a, κ
Description	The nuclear protein Ki-67 was first identified by the monoclonal antibody Ki-67, which was generated by immunizing mice with nuclei of the L428 Hodgkin lymphoma cell line. Ki-67 protein plays an essential role in ribosomal RNA transcription and cell proliferation. Expression of Ki-67 occurs during G1, S, G2, and M phase, while in G0 phase the Ki-67 protein is not detectable. Ki-67 is strongly expressed in proliferating cells and has been reported as a prognostic marker in various tumors.

Product Details

Verified Reactivity	Mouse
Antibody Type	Monoclonal
Host Species	Rat
Immunogen	*E. coli* expressed partial mouse Ki-67 recombinant protein, 1816-2163 aa.
Formulation	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide.
Preparation	The antibody was purified by affinity chromatography and conjugated with Alexa Fluor® 488 under optimal conditions.
Concentration	0.5 mg/ml
Storage & Handling	The antibody solution should be stored undiluted between 2°C and 8°C, and protected from prolonged exposure to light. **Do not freeze.**
Application	ICFC - *Quality tested*
Recommended Usage	Each lot of this antibody is quality control tested by our Ki-67 protocol below. For flow cytometric staining, the suggested use of this reagent is ≤1.0 µg per million cells in 100 µl volume. It is recommended that the reagent be titrated for optimal performance for each application. * Alexa Fluor® 488 has a maximum emission of 519 nm when it is excited at 488 nm. Alexa Fluor® and Pacific Blue™ are trademarks of Life Technologies Corporation. View full statement regarding label licenses
Excitation Laser	Blue Laser (488 nm)

Application References

(PubMed link indicates BioLegend citation)

1. Medina-Reyes EI, *et al.* 2015. *Environ Res.* 136:424. PubMed
2. Guillaumond F, *et al.* 2015. *PNAS.* 112:2473. PubMed
3. Sharma SK, *et al.* 2015. *J Immunol.* 194:5529. PubMed
4. Rodero MP, *et al.* 2014. *J. Invest. Dermatol.* 7:1991-7. PubMed

Product Citations

1. Nita A, *et al.* 2021. Cell Reports. 34(5):108688. PubMed
2. Burrack AL, *et al.* 2019. Cell Rep. 28:2140. PubMed
3. Sladky VC, *et al.* 2020. EMBO Rep. :e50893. PubMed
4. Jtte BB, *et al.* 2021. iScience. 24(8):102833. PubMed
5. Davidson S, *et al.* 2020. Cell Reports. 31(7):107628. PubMed
6. Kelsey E Sivick *et al.* 2018. Cell reports. 25(11):3074-3085 . PubMed
7. Dong S, *et al.* 2021. Nature. 591:117. PubMed

8. Tomala J, *et al.* 2020. Methods Mol Biol. 2111:101. PubMed
9. Sen B, *et al.* 2020. J Bone Miner Res. 35:1149. PubMed
10. McGinty JW, *et al.* 2020. Immunity. 52(3):528-541. PubMed
11. Fang Y, *et al.* 2020. Aging Cell. 19:e13232. PubMed
12. Xu L, *et al.* 2019. Haematologica. 10.3324/haematol.2018.207258. PubMed
13. Sparber F, *et al.* 2019. Cell Host Microbe. 25:389. PubMed
14. Song W, *et al.* 2022. Immunity. 55:290. PubMed

RRID

AB_2564236 (BioLegend Cat. No. 652417)
AB_2564269 (BioLegend Cat. No. 652418)

Antigen Details

Structure

325 kD protein containing a forkhead-associated domain (FHA) and 13 tandem repeats

Distribution

Nucleus and chromosome

Function

Required for cell cycle progression and proliferation

Interaction

Interacts with KIF15; binds to MKI67IP through FHA domain

Biology Area

Cell Biology, Cell Cycle/DNA Replication, Transcription Factors

Molecular Family

Nuclear Markers

Antigen References

1. Starborg M, *et al.* 1996. *J. Cell. Sci.* 109:143.
2. Byeon IJ, *et al.* 2005. *Nat. Struct. Mol. Biol.* 12:987.
3. Yerushalmi R, *et al.* 2010. *Lancet. Oncol.* 11:174.
4. Beltrami AP, *et al.* 2001. *N. Engl. J. Med.* 344:1750.
5. Sachsenberg N, *et al.* 1998. *J. Exp. Med.* 187:1295.
6. Nagy Z, *et al.* 1997. *Acta. Neuropathol.* 93:294.

Gene ID

17345

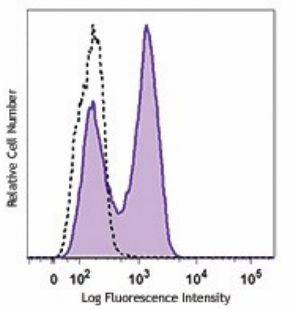
Related Protocols

Ki-67 Flow Cytometry Staining Protocol

Other Formats

Purified anti-mouse Ki-67, PE anti-mouse Ki-67, APC anti-mouse Ki-67, Alexa Fluor® 647 anti-mouse Ki-67, FITC anti-mouse Ki-67, Brilliant Violet 421™ anti-mouse Ki-67, Brilliant Violet 605™ anti-mouse Ki-67, Alexa Fluor® 488 anti-mouse Ki-67, Alexa Fluor® 700 anti-mouse Ki-67, Pacific Blue™ anti-mouse Ki-67, PerCP/Cyanine5.5 anti-mouse Ki-67, PE/Cyanine7 anti-mouse Ki-67, PE/Dazzle™ 594 anti-mouse Ki-67

Product Data



Con A-stimulated (3 days) C57BL/6 mouse splenocytes were fixed and permeabilized with 70% ethanol, then stained with Ki-67 (clone 16A8) Alexa Fluor® 488 (filled histogram) or rat IgG2a, κ Alexa Fluor® 488 isotype control (open histogram).

8999 BioLegend Way, San Diego, CA 92121 www.biolegend.com
Toll-Free Phone: 1-877-Bio-Legend (246-5343) Phone: (858) 768-5800 Fax: (877) 455-9587