

Alexa Fluor® 647 anti-JunB Antibody

Catalog# / Size	600455 / 25 µg 600456 / 100 µg
Clone	W20103F
Regulatory Status	RUO
Other Names	Activator Protein 1, AP-1
Isotype	Rat IgG2a, κ
Description	JunB is a member of the AP-1 family of transcription factors, which also includes c-Jun, c-Fos, Fra1, and JunD. JunB can form dimers with other Jun and Fos proteins, as well as members of the ATF transcription factor family, to form a functional AP-1 transcription factor complex. AP-1 complexes containing JunB can exert both activator and repressor function depending on the interacting partner and promoter sequence context. JunB displays both tumor suppressor and oncogenic activity, inducing genes involved in cell senescence and repressing genes involved in proliferation. JunB is required for T helper type 2 (Th2), T helper 17 (Th17) cell and regulatory T cell (Treg) differentiation. Multiple cancers display aberrant JunB expression and function. In some lymphomas, notably Hodgkin's lymphoma, JunB expression is elevated and the protein functions as an oncogenic transcription factor. Conversely, loss of JunB is observed in chronic myeloid leukemia.

Product Details

Verified Reactivity	Human
Antibody Type	Monoclonal
Host Species	Rat
Immunogen	Partial recombinant human JunB protein
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® 647 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	ICC - Quality tested ICFC - Verified
Recommended Usage	Each lot of this antibody is quality control tested by immunocytochemistry. For immunocytochemistry, a concentration range of 5.0 - 10.0 µg/mL is recommended. Each lot of this antibody is quality control tested by intracellular immunofluorescent staining with flow cytometric analysis. For flow cytometric staining, the suggested use of this reagent is ≤ 0.25 µg per million cells in 100 µL volume. It is recommended that the reagent be titrated for optimal performance for each application. * Alexa Fluor® 647 has a maximum emission of 668 nm when it is excited at 633 nm / 635 nm. Alexa Fluor® and Pacific Blue™ are trademarks of Life Technologies Corporation. View full statement regarding label licenses
Excitation Laser	Red Laser (633 nm)
Additional Product Notes	For use in immunocytochemistry (ICC), it is recommended to fix/permeabilize with either of the following: -Fixation buffer (Cat. No. 420801) with 100% ice-cold methanol For use in intracellular flow cytometry (ICFC), it is recommended to fix/permeabilize with True-Phos™ Perm Buffer (Cat. No. 425401).
RRID	AB_3720594 (BioLegend Cat. No. 600455) AB_3720594 (BioLegend Cat. No. 600456)

Antigen Details

Structure	JunB is a 347 amino acid protein with a predicted molecular weight of 36 kD.
Distribution	Nucleus
Function	Transcription Factor
Biology Area	Cell Biology, Cell Cycle/DNA Replication, Cell Proliferation and Viability, Transcription Factors
Antigen References	1. Shaulian E and Karin M. 2002. <i>Nat Cell Biol.</i> 4:E131-6. 2. Yang MY, <i>et al.</i> 2003. <i>Blood.</i> 101:3205-11. 3. Carr T, <i>et al.</i> 2017. <i>Nat Commun.</i> 8:301. 4. Katagiri T, <i>et al.</i> 2019. <i>Mucosal Immunol.</i> 12:1104-1117.

Gene ID [3726](#)

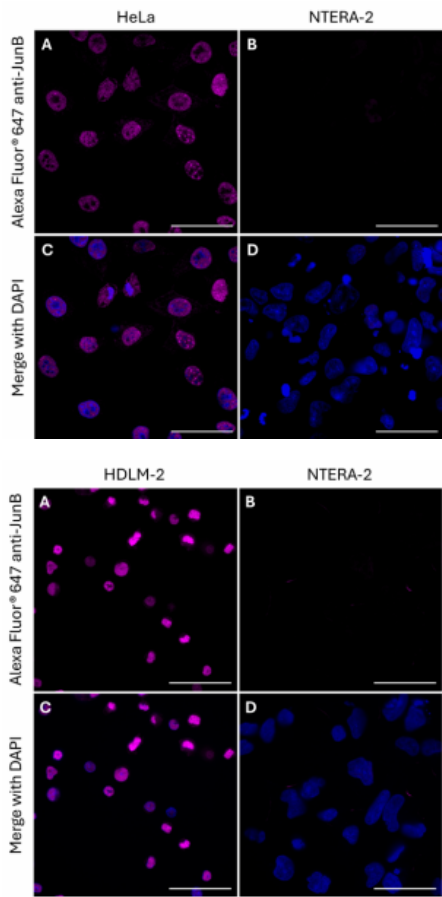
Related Protocols

- [Immunocytochemistry Staining for Methanol Fixed Cells](#)
- [Immunocytochemistry Staining Protocol](#)
- [Intracellular Staining With True-Phos™ Perm Buffer in Cell Suspensions Protocol](#)
- [Intracellular Staining With True-Phos™ Perm Buffer in Whole Blood](#)
- [Intracellular Flow Cytometry Staining Protocol](#)

Other Formats

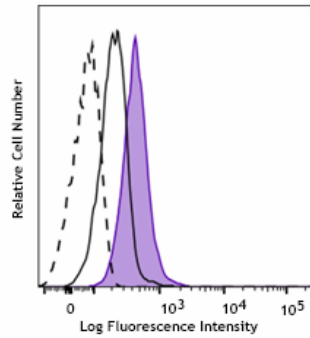
Purified anti-JunB, Alexa Fluor® 647 anti-JunB, Alexa Fluor® 488 anti-JunB Antibody

Product Data

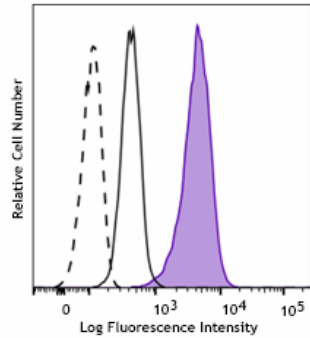


HeLa cells (positive cell line, panel A) and NTERA-2 cells (low-expressing cell line, panel B) were fixed with Fixation Buffer (Cat. No. 420801) for 10 minutes, permeabilized with 100% ice-cold methanol for 10 minutes, and blocked with 5% FBS for 1 hour at room temperature. Cells were then stained with Alexa Fluor® 647 anti-JunB (clone W20103F). Nuclei were counterstained with DAPI (Cat. No. 422801). The images were captured on a Revvity Operetta CLS™ High Content Analysis System with a 63X objective and merged (panels C and D). Scale bar: 50 μm

HDLM-2 cells (high-expressing cell line, panel A) and NTERA-2 cells (low-expressing cell line, panel B) were fixed with Fixation Buffer (Cat. No. 420801) for 10 minutes, permeabilized with 100% ice-cold methanol for 10 minutes, and blocked with 5% FBS for 1 hour at room temperature. Cells were then stained with Alexa Fluor® 647 anti-JunB (clone W20103F). Nuclei were counterstained with DAPI (Cat. No. 422801). The images were captured on a Revvity Operetta CLS™ High Content Analysis System with a 63X objective and merged (panels C and D). Scale bar: 50 μm



HeLa cells (positive cell line, filled histogram) and NTERA-2 cells (low-expressing cell line, open histogram) were fixed and permeabilized using True-Phos™ Perm Buffer (Cat. No. 425401) and intracellularly stained with Alexa Fluor® 647 anti-JunB (clone W20103F) or Alexa Fluor® 647 Rat IgG2a, κ Isotype Control (open histogram, dashed line, representative of both the positive and negative cell lines).



HDLM-2 cells (positive cell line, filled histogram) and NTERA-2 cells (low-expressing cell line, open histogram) were fixed and permeabilized using True-Phos™ Perm Buffer (Cat. No. 425401) and intracellularly stained with Alexa Fluor® 647 anti-JunB (clone W20103F) or Alexa Fluor® 647 Rat IgG2a, κ Isotype Control (open histogram, dashed line, representative of both the positive and negative cell lines).

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