Alexa Fluor® 647 anti-XBP-1s Antibody

Catalog# / Size	647505 / 25 tests 647506 / 100 tests
Clone	143F
Regulatory Status	RUO
Other Names	X-box binding protein 1
Isotype	Mouse IgG2a, κ
Description	XBP-1 is a transcription factor containing a bZIP domain. It was first identified because of its ability to bind X-box, a conserved transcriptional element in the promoter of human HLA DR gene. XBP-1 has multiple functions. It controls MHC class II gene regulation and is also essential for differentiation of plasma cells. XBP-1 upregulates as part of the ER stress response, also known as the unfolded protein response. Unspliced XBP-1 is 261 amino acids and migrates on the SDS-PAGE around 33 kD; spliced XBP-1, recognized by clone 143F, is 371 amino acids and migrates around 55 kD.

Product Details

Verified Reactivity	Human
Antibody Type	Monoclonal
Host Species	Mouse
Immunogen	XBP-1s recombinant protein
Formulation	Phosphate-buffered solution, pH 7.2, containing 0.09% sodium azide and BSA (origin USA)
Preparation	The antibody was purified by affinity chromatography and conjugated with Alexa Fluor® 647 under optimal conditions.
Concentration	Lot-specific (to obtain lot-specific concentration, please enter the lot number in our Concentration and Expiration Lookup or Certificate of Analysis online tools.)
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 intracellular immunofluorescent staining with flow cytometric analysis. For flow cytometric staining, the suggested use of this reagent is 5 µl per million cells in 100 µl staining volume or 5 µl per 100 µl of whole blood. * 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)
Application Notes	Additional reported applications (for the relevant formats) include: immunofluorescence[14] and immunohistochemical staining of PFA-fixed paraffin-embedded sections[1,14].

Application References

(PubMed link indicates BioLegend citation)

1. Tsang KY, *et al.* 2007. *PLOS Biol.* 5:568. (IHC) PubMed
2. Farhan H, *et al.* 2008. *EMBO J.* 27:2043 (WB) PubMed
3. Farhan H, *et al.* 2010. *J. Cell Biol.* 189:997. PubMed
4. Feng-Jin G, *et al.* 2010. *Cell Signal.* [Epub ahead of print]
5. Wang L, *et al.* 2011. *Hum Mol Genet.* PubMed
6. Li J, *et al.* 2011. *J. Biol Chem.* 286:4912. PubMed
7. Wang L, *et al.* 2011. *Hum Mol Genet.* 20:1008. PubMed
8. Liu Y, *et al.* 2011. *J Biol Chem.* 286:13161. PubMed

9. Shirley CM, *et al.* 2011 *Blood.* 117:6297. PubMed
10. Vidal RL., *et al.* 2012. *Hum Mol Genet.* PubMed
11. Byrd AE, *et al.* 2012. *J Cell Biol.* 196:689. PubMed
12. Dickie LJ, *et al.* 2012. *Ann rheum Dis.* 71:2035. PubMed
13. Bonetti P, *et al.* 2013. *Blood.* 122:2233. PubMed
14. Maestre L, *et al.* 2009. *Haematologica.* 94:419. (IF, IHC)
15. Rodriguez M, *et al.* 2014. *J Biol Chem.* 289:22942. PubMed

Product Citations

1. Shi X, *et al.* 2022. NPJ Precis Oncol. 6:58. PubMed

RRID

AB_2563449 (BioLegend Cat. No. 647505)
AB_2563450 (BioLegend Cat. No. 647506)

Antigen Details

Distribution

Ubiquitously expressed.

Function

Upregulated by ER stress, IL-6, and IL-4. Downregulation correlates with tumor progression in prostate cancer. Downregulated by PAX5 transcription factor.

Biology Area

Cell Biology

Antigen References

1. Liou HC, *et al.* 1990. *Science* 247:1581.
2. Ponath PD, *et al.* 1993. *J. Biol. Chem.*268:17074.
3. Takahashi S, *et al.* 2002. *Prostate* 50:154.

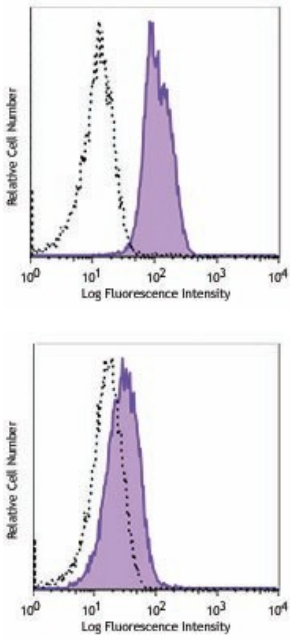
Gene ID

7494

Other Formats

Purified anti-XBP-1s, PE anti-XBP-1s, Alexa Fluor® 647 anti-XBP-1s

Product Data



Human hepatocellular carcinoma cell line, HEPG2, was incubated overnight with (top) or without (bottom) thapsigargin (300 nM). Cells were then treated with FOXP3 Fix/Perm Buffer Set, and then stained with anti-Human Xbp-1s (clone 143F) Alexa Fluor® 647 (filled histogram) or mouse IgG2a, κ Alexa Fluor® 647 isotype control (open histogram).

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