

Technical Data Sheet

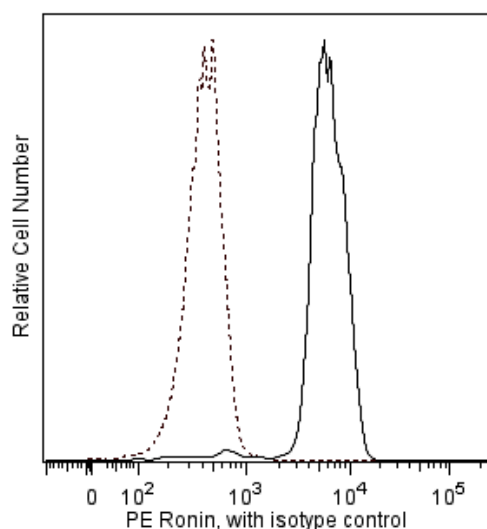
PE Mouse anti-Ronin/THAP11

Product Information

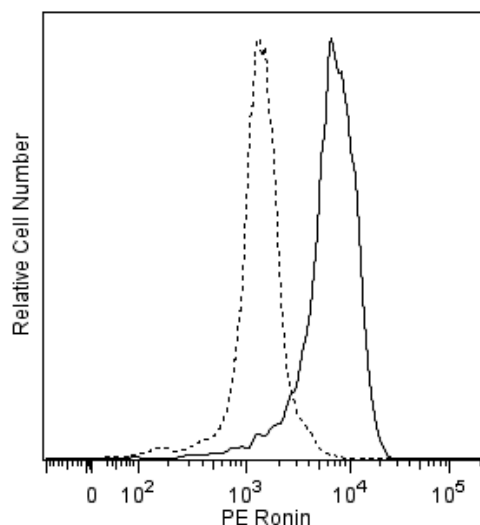
Material Number:	562549
Alternate Name:	Ronin, THAP11
Entrez Gene ID:	57215
Size:	50 tests
Vol. per Test:	5 µl
Clone:	P56-507
Immunogen:	Human Ronin/THAP11 Recombinant Protein
Isotype:	Mouse IgG2b, κ
Reactivity:	QC Tested: Human Tested in Development: Mouse
Storage Buffer:	Aqueous buffered solution containing BSA and ≤0.09% sodium azide.

Description

Thanatos-associated proteins (THAPs) are characterized by the THAP domain, which is a conserved *Drosophila* P element transposase DNA-binding domain. THAPs are DNA-binding factors involved in cell proliferation, apoptosis, cell cycle and transcriptional regulation. THAP11 is an essential factor in embryogenesis and ES cell pluripotency and binds directly to host cell factor 1 (HCF-1), a key regulator of transcriptional control. THAP11 has been designated as Ronin, named for a masterless Japanese samurai because of its lack of any apparent relationship to Nanog, Oct4 and Sox2—the master regulators of pluripotency. Ronin/THAP11 binds to the c-Myc promoter and down-regulates c-Myc expression. Recently, it was reported that Bcr-Abl inhibited the expression of THAP11 in Chronic myelogenous leukemia (CML) cells and promoted CML cell proliferation by the aberrant induction of c-Myc expression.



Flow cytometric analysis of Ronin in human embryonic stem (hES) cells. H9 hES cells (WiCell, Madison, WI) grown on an irradiated mouse embryonic fibroblast feeder layer were fixed with BD Cytofix™ buffer (Cat. No. 554655) and permeabilized with BD Phosflow™ Perm buffer III (Cat. No. 558050). The cells were stained with either PE Mouse IgG2b, κ isotype control (dashed lines, Cat. No. 555743) or PE Mouse Anti-Ronin/THAP11 antibody (solid lines) at matched concentrations. The histograms were derived from gated events based on light scattering characteristics of the hES cells. Flow cytometry was performed on a BD LSR™ II flow cytometry system.



Flow cytometric analysis of Ronin in mouse embryonic stem cells and Ronin knockout mouse embryonic stem (mES) cells. Ronin knockout mES cells were generated using a tamoxifen-inducible ERT2-Cre system. Ronin knockout and control mES cells were fixed and permeabilized with BD Cytofix/ Cytoperm™ Buffer (Cat. No. 554722). Cells were stained with PE mouse anti-Ronin/THAP11 on control (solid histogram) and knockout cells (dashed histogram). The histograms were derived from gated events based on light scattering characteristics of the control and knockout mES cells respectively. Flow cytometry was performed on a BD LSRFortessa™ cell analyzer. Data generated by Dr. Thomas Zwaka's Lab, Baylor College of Medicine.

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Preparation and Storage

Store undiluted at 4°C and protected from prolonged exposure to light. Do not freeze.

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

The antibody was conjugated with R-PE under optimum conditions, and unconjugated antibody and free PE were removed.

Application Notes

Application

Intracellular staining (flow cytometry)	Routinely Tested
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Suggested Companion Products

Catalog Number	Name	Size	Clone
554655	Fixation Buffer	100 ml	(none)
555743	PE Mouse IgG2b κ Isotype Control	100 tests	27-35
558050	Perm Buffer III	125 ml	(none)
554656	Stain Buffer (FBS)	500 ml	(none)
562548	Purified Mouse anti-Ronin/THAP11	0.1 mg	P56-507
554722	Fixation and Permeabilization Solution	125 ml	(none)

Product Notices

1. This reagent has been pre-diluted for use at the recommended Volume per Test. We typically use 1×10^6 cells in a 100- μ l experimental sample (a test).
2. An isotype control should be used at the same concentration as the antibody of interest.
3. For fluorochrome spectra and suitable instrument settings, please refer to our Multicolor Flow Cytometry web page at www.bdbiosciences.com/colors.
4. Please refer to www.bdbiosciences.com/pharming/en/protocols for technical protocols.
5. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.
6. Source of all serum proteins is from USDA inspected abattoirs located in the United States.

References

Dejosez M, Krumenacker JS, Zitur LJ, et al. Ronin is essential for embryogenesis and the pluripotency of mouse embryonic stem cells. *Cell*. 2008; 133(7):1162-1174. (Biology)

Dejosez M, Levine SS, Frampton GM, et al. Ronin/Hcf-1 binds to a hyperconserved enhancer element and regulates genes involved in the growth of embryonic stem cells. *Genes Dev*. 2010; 24(14):1479-1484. (Biology)

Nakamura S, Yokota D, Tan L, et al. Down-regulation of Thanatos-associated protein 11 by BCR-ABL promotes CML cell proliferation through c-Myc expression. *Int J Cancer*. 2012; 130(5):1046-1059. (Biology)

Zhu CY, Li CY, Li Y, et al. Cell growth suppression by thanatos-associated protein 11(THAP11) is mediated by transcriptional downregulation of c-Myc. *Cell Death Differ*. 2009; 16(3):395-405. (Biology)

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