Datasheet for ABIN967665

anti-TAZ antibody

3 Images | 3 Publications

Go to Product page

Overview

Quantity:	0.1 mg
Target:	TAZ
Reactivity:	Human, Mouse
Host:	Mouse
Clonality:	Monoclonal
Application:	Western Blotting (WB), BioImaging (BI)

Product Details

Brand:	BD Pharmingen™
Immunogen:	Human TAZ Recombinant Protein
Clone:	M2-616
Isotype:	IgG2b kappa
Cross-Reactivity:	Mouse (Murine)
Characteristics:	1. Since applications vary, each investigator should titrate the reagent to obtain optimal results. 2. Please refer to us for technical protocols. 3. 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. 4. Triton is a trademark of the Dow Chemical Company. 5. This antibody has been developed and certified for the bioimaging application. However, a routine bioimaging test is not performed on every lot. Researchers are encouraged to titrate the

Product Details

	reagent for optimal performance.
Purification:	The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

Target Details

Target:	TAZ
Alternative Name:	TAZ (TAZ Products)
Background:	Taz is a 49-kDa transcriptional co-activator with a PDZ-binding motif and is regulated by binding with 14-3-3 proteins. It plays a key role in differentiation of mesenchymal stem cells into either osteoblasts or adipocytes via interactions with key transcription factors Runx2 and PPARgamma. More recently, Taz was found to be a component of an E3 ubiquitin ligase involved in ubiquitin-dependent substrate proteolysis by mediating its interaction with the F-box protein beta-Trcp. Therefore, Taz has dual functions of regulating protein degradation and transcription. Synonyms: WWTR1
Molecular Weight:	49 kDa

Application Details

Application Notes:	Recommended Protocol for Bioimaging: 1. Seed the cells in appropriate culture medium at an appropriate cell density in an 96-well Imaging Plate , and culture overnight to 48 hours. 2. Remove the culture medium from the wells, and wash (one to two times) with 100 µl of 1× PBS. 3. Fix the cells by adding 100 µl of fresh 3.7% Formaldehyde in PBS or fixation buffer to each well and incubating for 10 minutes at room temperature (RT). 4. Remove the fixative from the wells, and wash the wells (one to two times) with 100 µl of 1× PBS. 5. Permeabilize the cells using either cold methanol (a), Triton™ X-100 (b), or Saponin (c): a. Add 100 µl of -20°C 90% methanol to each well and incubate for 5 minutes at RT. b. Add 100 µl of 0.1% Triton™ X-100 to each well and incubate for 5 minutes at RT. c. Add 100 µl of 1× Perm/Wash buffer to each well and incubate for 15 to 30 minutes at RT. Continue to use 1× Perm/Wash buffer for all subsequent wash and dilutions steps. 6. Remove the permeabilization buffer from the wells, and wash one to two times with 100 µl of

Application Details

	appropriate buffer (either 1× PBS or 1× Perm/Wash buffer, see step 5.c.). 7. Optional blocking step: Remove the wash buffers, and block the cells by adding 100 µl of blocking buffer or 3% FBS in appropriate dilution buffer to each well and incubating for 15 to 30 minutes at RT. 8. Dilute the antibody to its optimal working concentration in appropriate dilution buffer. Titrate purified (unconjugated) antibodies and second-step reagents to determine the optimal concentration. If using a Bioimaging Certified antibody conjugate, dilute it 1:10. 9. Add 50 µl of diluted antibody per well and incubate for 60 minutes at RT. Incubate in the dark if using fluorescently labeled antibodies. 10. Remove the antibody, and wash the wells three times with 100 µl of wash buffer. An optional detergent wash (100 µl of 0.05% Tween in 1× PBS) can be included prior to the regular wash steps. 11. If the antibody being used is fluorescently labeled, then move to step 12. Otherwise, if using a purified unlabeled antibody, repeat steps 8 to 10 with a fluorescently labeled second-step reagent to detect the purified antibody. 12. After the final wash, counter-stain the nuclei by adding 100 µl of a 2 µg/ml solution of Hoechst 33342 in 1× PBS to each well at least 15 minutes before imaging. 13. View and analyze the cells on an appropriate imaging instrument.
Comment:	Related Products: ABIN967389, ABIN968535
Restrictions:	For Research Use only

Handling

Format:	Liquid
Concentration:	0.5 mg/mL
Buffer:	Aqueous buffered solution containing ≤0.09 % sodium azide.
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	4 °C
Storage Comment:	Store undiluted at 4°C.

Publications

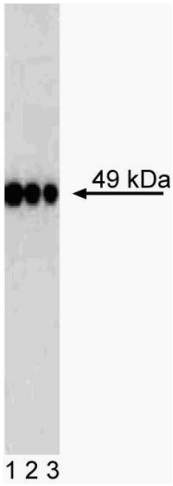
Product cited in:

Hong, Yaffe: "TAZ: a beta-catenin-like molecule that regulates mesenchymal stem cell differentiation." in: **Cell cycle (Georgetown, Tex.)**, Vol. 5, Issue 2, pp. 176-9, (2006) (PubMed).

Hong, Hwang, McManus, Amsterdam, Tian, Kalmukova, Mueller, Benjamin, Spiegelman, Sharp, Hopkins, Yaffe: "TAZ, a transcriptional modulator of mesenchymal stem cell differentiation." in: **Science (New York, N.Y.)**, Vol. 309, Issue 5737, pp. 1074-8, (2005) (PubMed).

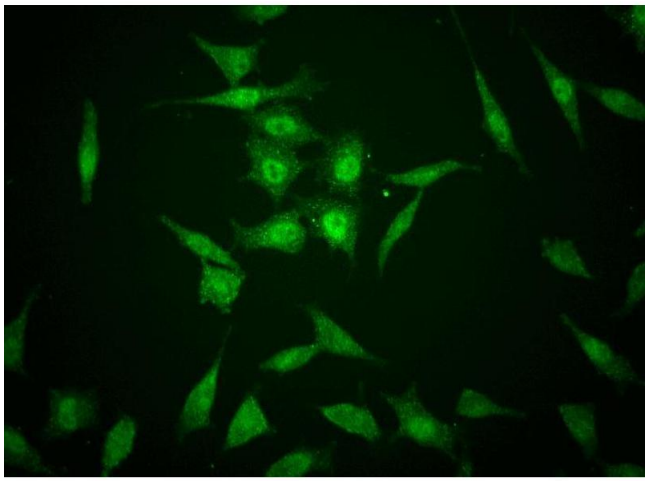
Kanai, Marignani, Sarbassova, Yagi, Hall, Donowitz, Hisaminato, Fujiwara, Ito, Cantley, Yaffe: " TAZ: a novel transcriptional co-activator regulated by interactions with 14-3-3 and PDZ domain proteins." in: **The EMBO journal**, Vol. 19, Issue 24, pp. 6778-91, (2001) (PubMed).

Images



Western Blotting

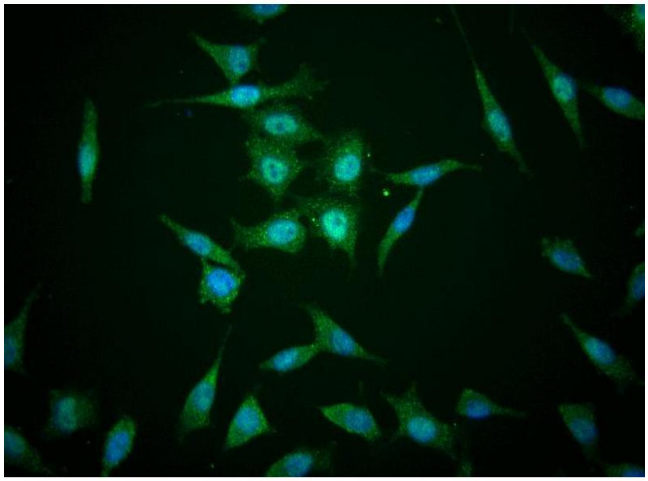
Image 1. Western blot analysis of TAZ in transformed human epithelioid carcinoma. HeLa cell lysate (ABIN968535) was probed with Purified Mouse anti-TAZ monoclonal antibody at concentrations of 0.5, 0.25, and 0.125 µg/ml (lanes 1, 2, and 3, respectively). TAZ is identified as a band of 49 kDa.



Immunofluorescence

Image 2. Immunofluorescent staining of human cell lines. HeLa cells (ATCC CCL-2) were seeded in two 96-well imaging plates at ~10,000 cells per well. After overnight incubation, the cells were fixed, permeabilized with Saponin, and stained with Purified Mouse anti-TAZ (pseudocolored green) according to the Recommended Assay Procedure. The second-step reagent was Alexa Fluor® 555 goat anti-mouse Ig (Invitrogen). The left image shows TAZ alone, and the right image shows TAZ merged with Hoechst staining. Images were captured on a BD Pathway™ 435 bioimager using a 20x objective and merged using BD AttoVision™

software. Other permeabilization methods, cold methanol and Triton™ X-100, did not work well.



Immunofluorescence

Image 3. Immunofluorescent staining of human cell lines