abcam

Product datasheet

Anti-Metallothionein antibody [UC1MT] ab12228

6 Abreviews 50 References 5 Images

Overview

Product name	Anti-Metallothionein antibody [UC1MT]
Description	Mouse monoclonal [UC1MT] to Metallothionein
Host species	Mouse
Tested applications	**Suitable for:** ICC/IF, WB, Flow Cyt
Species reactivity	**Reacts with:** Rabbit, Human
Immunogen	Full length protein corresponding to Rabbit Metallothionein. Cross-linked rabbit liver Metallothionein I and II.
Positive control	HeLa cell lysate treated with 100uM CdCl2 Rehydrated rabbit liver MTI/MTII
General notes	This product was changed from ascites to tissue culture supernatant on 22nd May 2019. Please note that the dilutions may need to be adjusted accordingly. If you have any questions, please do not hesitate to contact our scientific support team. The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing. If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.
Storage buffer	Preservative: 0.09% Sodium azide Constituents: 2.68% PBS, 50% Glycerol (glycerin, glycerine)
Purity	Tissue culture supernatant
Purification notes	Purified from TCS.
Clonality	Monoclonal
Clone number	UC1MT
Isotype	IgG1

Applications

The Abpromise guarantee Our Abpromise guarantee covers the use of ab12228 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
ICC/IF		Use at an assay dependent concentration.
WB	★★★☆☆ (3)	Use at an assay dependent concentration. Detects a band of approximately 6-20 kDa (predicted molecular weight: 6 kDa). Please note: often Western blots done on cell lysates with this antibody produce many bands; we suspect that metallothionein binds to many other proteins, thus producing these results. As the predicted MW is around 6 kDa, use 12.5-20% gel and be sure the protein is not run off the gel during electrophoresis.
Flow Cyt		Use at an assay dependent concentration. ab170190 - Mouse monoclonal IgG1, is suitable for use as an isotype control with this antibody.

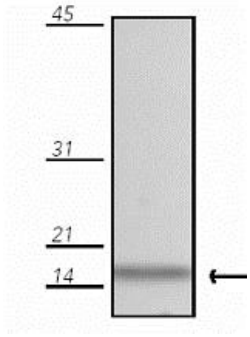
Target

Function Metallothioneins have a high content of cysteine residues that bind various heavy metals; these proteins are transcriptionally regulated by both heavy metals and glucocorticoids.

Sequence similarities Belongs to the metallothionein superfamily. Type 1 family.

Domain Class I metallothioneins contain 2 metal-binding domains: four divalent ions are chelated within cluster A of the alpha domain and are coordinated via cysteinyl thiolate bridges to 11 cysteine ligands. Cluster B, the corresponding region within the beta domain, can ligate three divalent ions to 9 cysteines.

Images



Western blot - Anti-Metallothionein antibody [UC1MT] (ab12228)

Anti-Metallothionein antibody [UC1MT] (ab12228) + Hela cell lysate

Secondary

HRP-conjugated antibody.

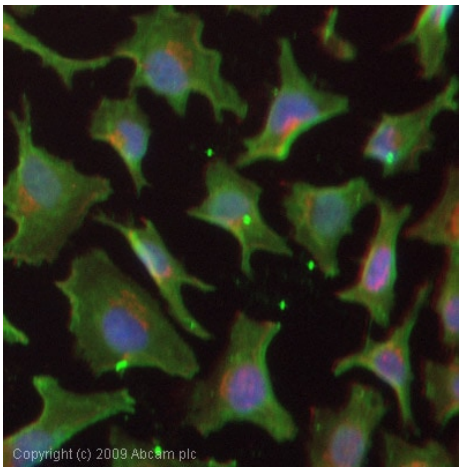
Developed using the ECL technique.

Performed under reducing conditions.

Predicted band size: 6 kDa

Exposure time: 2 minutes

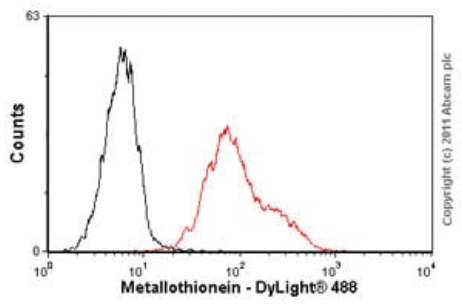
This image was generated using the ascites version of the product.



Immunocytochemistry/ Immunofluorescence - Anti-Metallothionein antibody [UC1MT] (ab12228)

ICC/IF image of ab12228 stained HeLa cells. The cells were 4% PFA fixed (10 min) and then incubated in 1%BSA / 10% normal goat serum / 0.3M glycine in 0.1% PBS-Tween for 1h to permeabilise the cells and block non-specific protein-protein interactions. The cells were then incubated with the antibody (ab12228, 1µg/ml) overnight at +4°C. The secondary antibody (green) was Alexa Fluor® 488 goat anti-mouse IgG (H+L) used at a 1/1000 dilution for 1h. Alexa Fluor® 594 WGA was used to label plasma membranes (red) at a 1/200 dilution for 1h. DAPI was used to stain the cell nuclei (blue) at a concentration of 1.43µM.

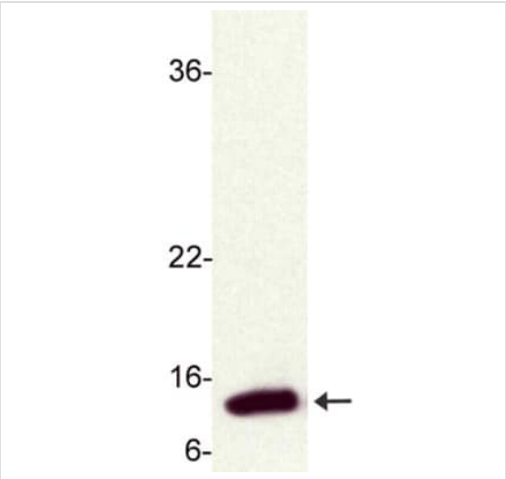
This image was generated using the ascites version of the product.



Flow Cytometry - Anti-Metallothionein antibody [UC1MT] (ab12228)

Overlay histogram showing HeLA cells stained with ab12228 (red line). The cells were fixed with 100% methanol (5 min) and then permeabilized with 0.1% PBS-Tween for 20 min. The cells were then incubated in 1x PBS / 10% normal goat serum / 0.3M glycine to block non-specific protein-protein interactions followed by the antibody (ab12228, 1µg/1x10^6 cells) for 30 min at 22°C. The secondary antibody used was DyLight® 488 goat anti-mouse IgG (H+L) (ab96879) at 1/500 dilution for 30 min at 22°C. Isotype control antibody (black line) was Mouse IgG1 [ICIGG1] (ab91353, 2µg/1x10^6 cells) used under the same conditions. Acquisition of >5,000 events was performed.

This image was generated using the ascites version of the product.

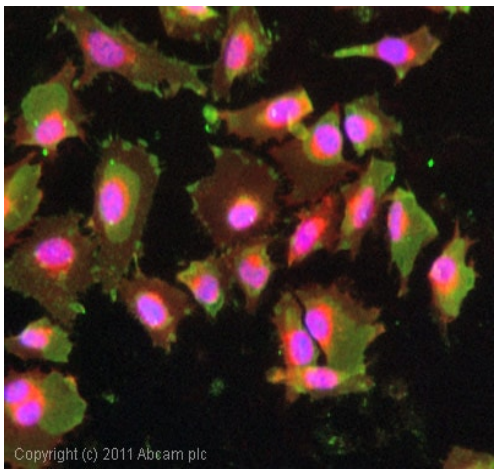


Western blot - Anti-Metallothionein antibody [UC1MT] (ab12228)

Anti-Metallothionein antibody [UC1MT] (ab12228) at 1/1000 dilution + Rabbit liver lysates

Predicted band size: 6 kDa

This image was generated using the ascites version of the product.



Immunocytochemistry/ Immunofluorescence - Anti-Metallothionein antibody [UC1MT] (ab12228)

ICC/IF image of ab12228 stained HeLa cells. The cells were 4% PFA fixed (10 min) and then incubated in 1%BSA / 10% normal goat serum / 0.3M glycine in 0.1% PBS-Tween for 1h to permeabilise the cells and block non-specific protein-protein interactions. The cells were then incubated with the antibody (ab12228, 10µg/ml) overnight at +4°C. The secondary antibody (green) was DyLight® 488 goat anti-mouse IgG - H&L, pre-adsorbed (ab96879) used at a 1/250 dilution for 1h. Alexa Fluor® 594 WGA was used to label plasma membranes (red) at a 1/200 dilution for 1h. DAPI was used to stain the cell nuclei (blue) at a concentration of 1.43µM.

This image was generated using the ascites version of the product.

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

Our Abpromise to you: Quality guaranteed and expert technical support

- Replacement or refund for products not performing as stated on the datasheet
- Valid for 12 months from date of delivery
- Response to your inquiry within 24 hours
- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit https://www.abcam.com/abpromise or contact our technical team.

Terms and conditions

- Guarantee only valid for products bought direct from Abcam or one of our authorized distributors