abcam

ab12228

Anti-Metallothionein antibody [UC1MT]

Anti-Metallothionein antibody [UC1MT] (ab12228) is a mouse monoclonal antibody detecting Metallothionein in **Western Blot, Flow Cytometry, ICC/IF**. Suitable for **Human, Rabbit**.

- Over 50 publications
- Trusted since 2004

Key facts

Isotype	IgG1
Host species	Mouse
Storage buffer	Preservative: 0.09% Sodium azide Constituents: PBS, 50% Glycerol (glycerin, glycerine)
Form	Liquid
Clonality	Monoclonal
Immunogen	Full Length Protein corresponding to Rabbit MT1A_RABIT. The exact immunogen used to generate this antibody is proprietary information. Database link P11957
Clone number	UC1MT
Purification technique	Affinity purification Protein G
Concentration	1 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →
Purification notes	Purified from TCS.

Reactivity data

Flow Cyt

Tested

Species	Human
Dilution info	-
Notes	ab170190 - Mouse monoclonal IgG1, is suitable for use as an isotype control with this antibody.

Expected

Species	Rabbit
Dilution info	Use at an assay dependent concentration.
Notes	-

WB

Tested

Species	Human
Dilution info	-
Notes	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.

Species	Rabbit
Dilution info	-
Notes	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.

ICC/IF

Tested

Species	Human
Dilution info	-
Notes	-

Expected

Species	Rabbit
Dilution info	Use at an assay dependent concentration.
Notes	-

Target data

See full target information MT1A

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.

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	-20°C
Aliquoting information	Upon delivery aliquot
Storage information	Avoid freeze / thaw cycle

Notes

What is this antibody validated in?
Anti-Metallothionein antibody [UC1MT] (ab12228) is a mouse monoclonal antibody and is validated for use in Western Blot (WB), Flow Cytometry (Flow Cyt), Immunocytochemistry/immunofluorescence (ICC/IF) in Human, Rabbit samples.

What is the molecular weight of Metallothionein?
Anti-Metallothionein [UC1MT] (ab12228) specifically detects a band for Metallothionein (UniProt: P02795) at a molecular weight of 6kDa.

Trusted by the scientific community
Anti-Metallothionein [UC1MT] (ab12228) was first used in a scientific publication in 2004 and has been cited over 50 times in peer-reviewed journals.

Reviewed by scientists
Anti-Metallothionein [UC1MT] (ab12228) has over 5 independent reviews from customers.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

We do not recommend this combination. It is not covered by our product promise.

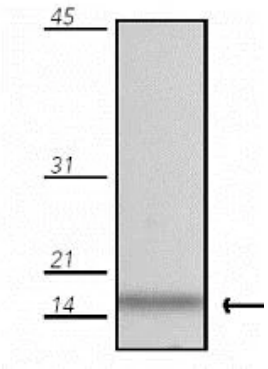
We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:
Terms & Conditions.

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5 product images



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

Metallothionein Western blot staining of Hela cell lysate using mouse Anti-Metallothionein antibody

This image was generated using the ascites version of the product.
All lanes:
Western blot - Anti-Metallothionein antibody [UC1MT] (ab12228)

All lanes:
Hela cell lysate

Secondary

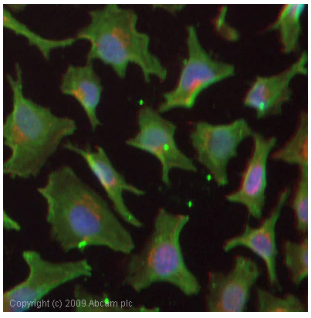
All lanes:
HRP-conjugated antibody.

Developed using the ECL technique.

Performed under reducing conditions.

Predicted band size: 6 kDa

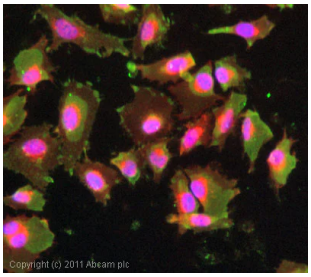
Exposure time: 2min



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

Metallothionein Immunocytochemistry/ Immunofluorescence staining using mouse Anti-Metallothionein antibody

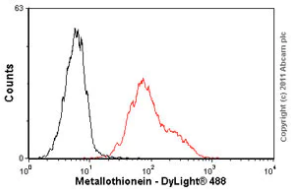
ICC/IF image of ab12228 stained HeLa cells. The cells were 4% PFA fixed (10 min) and then incubated in 1%BSA / 10% normal goat serum / 0.3M glycine in 0.1% PBS-Tween for 1h to permeabilise the cells and block non-specific protein-protein interactions. The cells were then incubated with the antibody (ab12228, 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.



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

Metallothionein Immunocytochemistry/ Immunofluorescence staining using mouse Anti-Metallothionein antibody

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.



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

Metallothionein Flow Cytometry staining using mouse Anti-Metallothionein antibody

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)

Metallothionein Western blot staining of Rabbit liver lysates using mouse Anti-Metallothionein antibody

This image was generated using the ascites version of the product.
All lanes:
Western blot - Anti-Metallothionein antibody [UC1MT] (ab12228) at 1/1000 dilution

All lanes:
Rabbit liver lysates

Predicted band size: 6 kDa

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.