abcam

ab325177

Anti-Metallothionein antibody [EPR29104-22]

Recombinant | RabMAb | 20ul selling size

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.2 - 7.4 Preservative: 0.01% Sodium azide Constituents: PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Clone number	EPR29104-22
Purification technique	Affinity purification Protein A
Concentration	0.495 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	1/500
Notes	-

Not recommended

Species	Mouse, Rat
Dilution info	-
Notes	-

ICC/IF

Tested

Species	Human
Dilution info	1/500
Notes	-

Not recommended

Species	Mouse, Rat
Dilution info	-
Notes	-

IHC-P

Tested

Species	Human
Dilution info	1/100
Notes	Perform heat-mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Not recommended

Species	Mouse, Rat
Dilution info	-
Notes	-

WB

Tested

Species	Human
Dilution info	1/1000
Notes	-

Not recommended

Species	Mouse, Rat
Dilution info	-
Notes	-

Target data

See full target information MT2A

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	Conditional Ambient
Appropriate short-term storage duration	1-2 weeks
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

Patented technology
Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb® patents.

What are the advantages of a recombinant monoclonal antibody?
This product is a recombinant monoclonal antibody, which offers several advantages including:

- High batch-to-batch consistency and reproducibility
- Improved sensitivity and specificity
- Long-term security of supply
- Animal-free batch production

For more information, read more on recombinant antibodies.

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

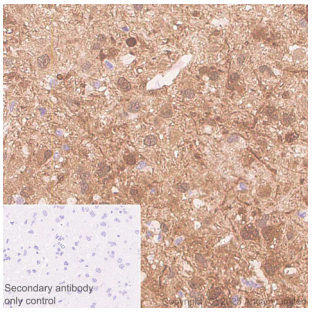
We do not recommend this combination. It is not covered by our product promise.

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.

7 product images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Metallothionein antibody [EPR29104-22] (ab325177)

Metallothionein Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining of Human astrocytoma using rabbit Anti-Metallothionein antibody

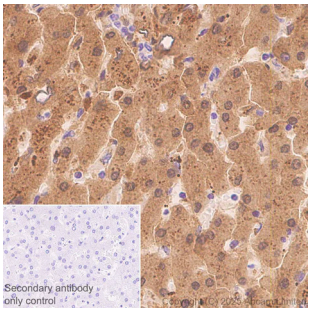
Immunohistochemical analysis of paraffin-embedded Human astrocytoma tissue labeling Metallothionein with ab325177 at 1/100 (5.08 ug/ml) dilution, followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Positive staining in human astrocytoma.
The primary antibody was incubated for 30 mins at room temperature.
The immunostaining was performed on a Leica Biosystems BOND® RX instrument

Counterstained with Hematoxylin.

Secondary antibody only control: Secondary antibody is a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Heat mediated antigen retrieval was performed with Tris-EDTA buffer (pH 9.0, Epitope Retrieval Solution2) for 20 mins



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Metallothionein antibody [EPR29104-22] (ab325177)

Metallothionein Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining of Human liver using rabbit Anti-Metallothionein antibody

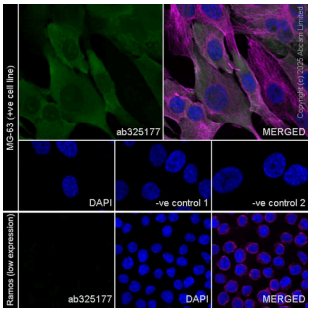
Immunohistochemical analysis of paraffin-embedded Human liver tissue labeling Metallothionein with ab325177 at 1/100 (5.08 ug/ml) dilution, followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Positive staining in human liver.
The primary antibody was incubated for 30 mins at room temperature.
The immunostaining was performed on a Leica Biosystems BOND® RX instrument

Counterstained with Hematoxylin.

Secondary antibody only control: Secondary antibody is a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Heat mediated antigen retrieval was performed with Tris-EDTA buffer (pH 9.0, Epitope Retrieval Solution2) for 20 mins



Immunocytochemistry/ Immunofluorescence - Anti-Metallothionein antibody [EPR29104-22] (ab325177)

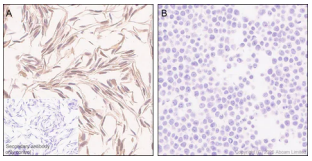
Metallothionein Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-Metallothionein antibody

Immunofluorescent analysis of 4% Paraformaldehyde-fixed, 0.1% TritonX-100 permeabilized MG-63 (human osteosarcoma fibroblast); Ramos (human Burkitt's lymphoma B lymphocyte) cells labelling Metallothionein with ab325177 at 1/500 (1.016 ug/ml) dilution, followed by ab150081 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed antibody at 1/1000 dilution (Green).

Confocal image showing cytoplasmic and nuclear staining in MG-63 cell line (shown in green). The counterstain was observed in magenta. Nuclear DNA was labelled with DAPI (shown in blue). Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).
Low expression: Ramos.

ab7291 Anti-alpha Tubulin mouse monoclonal antibody was used to counterstain tubulin at 1/1000 dilution (Magenta). The Nuclear counterstain was DAPI (Blue).

-ve control 1: ab325177 at 1/500 dilution, followed by ab150120 Goat Anti-Mouse IgG H&L (Alexa Fluor® 594) at 1/1000 dilution.
-ve control 2: ab7291 at 1/1000 dilution, followed by ab150081 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) at 1/1000 dilution.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Metallothionein antibody [EPR29104-22] (ab325177)

Metallothionein Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-Metallothionein antibody

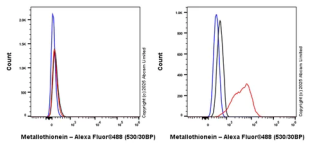
Immunohistochemical analysis of paraffin-embedded A MG-63 (human osteosarcoma fibroblast) cell pellets B Ramos (human Burkitt's lymphoma B lymphocyte) tissue labeling Metallothionein with ab325177 at 1/100 (5.08 ug/ml) dilution, followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Positive staining in A: MG-63 and no signal in B: Ramos.
The primary antibody was incubated for 30 mins at room temperature.
The immunostaining was performed on a Leica Biosystems BOND® RX instrument

Counterstained with Hematoxylin.

Secondary antibody only control: Secondary antibody is a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Heat mediated antigen retrieval was performed with Tris-EDTA buffer (pH 9.0, Epitope Retrieval Solution2) for 20 mins



Flow Cytometry (Intracellular) - Anti-Metallothionein antibody [EPR29104-22] (ab325177)

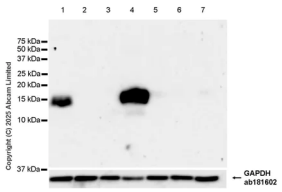
Metallothionein Flow Cytometry (Intracellular) staining using rabbit Anti-Metallothionein antibody

Flow cytometric analysis of 4% paraformaldehyde fixed 90% methanol permeabilized Ramos (human Burkitt's lymphoma B lymphocyte, Left) / MG-63 (human osteosarcoma fibroblast, Right)

cells labelling Metallothionein with ab325177 at 1/500 dilution (0.1ug) (Red) compared with a Rabbit monoclonal IgG (ab172730) (Black) isotype control and an unlabelled control (cells without incubation with primary antibody and secondary antibody).

Goat Anti-Rabbit IgG (Alexa Fluor® 488, ab150081) at 1/5000 dilution was used as the secondary antibody.

Low expression: Ramos.



Western blot - Anti-Metallothionein antibody [EPR29104-22] (ab325177)

Metallothionein Western blot staining using rabbit Anti-Metallothionein antibody

Blocking and diluting buffer and concentration: 5% NFDM/TBST.

Low expression: Ramos, small intestine (PMID: 155411360), lung, cerebellum.

The expression profile/ molecular weight observed is consistent with what has been described in the literature (PMID: 23870553).

In Western blot, Anti-GAPDH antibody [EPR16891] - Loading Control (ab181602) staining at 1/200000 dilution.

All lanes:
Western blot - Anti-Metallothionein antibody [EPR29104-22] (ab325177) at 1/1000 dilution

Lane 1:
MG-63 (human osteosarcoma fibroblast) transfected with scrambled siRNA control whole cell lysate at 50 µg

Lane 2:
MG-63 transfected with siRNA specifically targeting Metallothionein whole cell lysate at 50 µg

Lane 3:
Ramos (human Burkitt's lymphoma B lymphocyte) at 50 µg

Lane 4:
Human liver tissue lysate at 50 µg

Lane 5:
Human small intestine tissue lysate at 50 µg

Lane 6:
Human lung tissue lysate at 50 µg

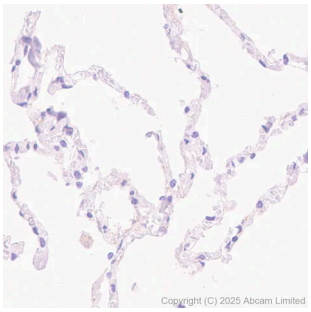
Lane 7:
Human cerebellum tissue lysate at 50 µg

Secondary

All lanes:
Western blot at 1/2000 dilution

Observed band size: 15-20 kDa, 36 kDa

Exposure time: 70s



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Metallothionein antibody [EPR29104-22] (ab325177)

Metallothionein Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining of Human lung using rabbit Anti-Metallothionein antibody

Immunohistochemical analysis of paraffin-embedded Human lung tissue labeling Metallothionein with ab325177 at 1/100 (5.08 ug/ml) dilution, followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Low expression tissue: No staining in human lung.
The primary antibody was incubated for 30 mins at room temperature.
The immunostaining was performed on a Leica Biosystems BOND® RX instrument

Counterstained with Hematoxylin.

Secondary antibody only control: Secondary antibody is a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Heat mediated antigen retrieval was performed with Tris-EDTA buffer (pH 9.0, Epitope Retrieval Solution2) for 20 mins

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