



Code No.KAL-KA009-01-EX

For research use only

Heavy metal detoxification and Oxidative stress  
**Anti Metallothionein Monoclonal Antibody**  
**Biotin conjugated**

(Clone No.1A12)

Metallothionein(MT), a cysteine-rich(30%), metal-binding protein, exists in most tissues and is easily induced by many stimuli. It's multifunction roles in the body have been proposed such as a chelator to harmful heavy metals and excessive essential metals, a scavenger to various radicals and active oxygen species, and a regulator in the cell proliferation process.

This product consists of protein G purified mouse monoclonal antibody against rabbit MT-2 and can be used for immunoblotting. This antibody reacts with rabbit MT-1,2, human MT-1, mouse MT-1 and rat MT-1.

Package Size	100 $\mu$ g (100 $\mu$ L/vial)
Format	Mouse monoclonal antibody 1.0mg/mL
Buffer	1% BSA as a stabilizer, containing 0.1% proclin as a bacteriostat
Storage	Store below $-20^{\circ}\text{C}$ . Once thawed, store at $4^{\circ}\text{C}$ . Repeated freeze-thaw cycles should be avoided.
Purification method	The splenic lymphocytes from BALB/c mouse, immunized with rabbit metallothionein-2, were fused to myeloma P3U1 cells. The cell line (1A12) with positive reaction was grown in ascitic fluid of BALB/c mouse, from which the antibody was purified by Protein G affinity chromatography.
Working dilution for immunoblotting:	0.01 $\mu$ g/mL
Specificity	This antibody reacts with rabbit MT-1,2, human MT-1, mouse MT-1 and rat MT-1

【References】

- 1 Yasutake A, et al.(1998) : Induction by Mercury Compounds of Brain Metallothionein in Rats:Hgo Exposure Induces Long-lived Brain Metallothionein. *Arch Toxicol*.vol.72,No4, 187-191
- 2 Mullins JE, et al.(1998) : Immunohistochemical Detection of Metallothionein in Liver,Duodenum and Kidney after Dietary Copper-Overload in Rats.*Histol Histopathol*.vol.13,No.3, 627-633
- 3 Kikuchi Y, et al,(1993) : Induction of Metallothionein in a Human Astrocytoma Cell Line by Interleukin-1 and heavy Metals . *FFBS Lett.*,vol.317,No1-2, 22-26
- 4 M.Nordberg.(1998): Metallothionein: historical review and state of knowledge. *Talanta* 46(2), 243-254
- 5 Akintola DF, et al.(1995) : Development of an enzyme-linked immunosorbent assay for human metallothionein-1 in plasma and urine. *J.Lab*.126(2) 119-127

Distributor



COSMO BIO Co., LTD.  
Inspiration for Life Science

TOYO EKIMAE BLDG. 2-20, TOYO 2CHOME  
KOTO-KU, TOKYO 135-0016, JAPAN  
TEL : +81-3-5632-9617  
FAX : +81-3-5632-9618  
URL : <http://www.cosmobio.co.jp/>  
e-mail : [export@cosmobio.co.jp](mailto:export@cosmobio.co.jp)

Manufacturer

TransGenic Inc.

7-1-6 Minatojimaminami-machi,  
Chuo-ku, Kobe,650-0047 JAPAN  
TEL : +81-78-306-0590  
FAX : +81-78-306-0589  
URL : <http://www.transgenic.co.jp/>  
e-mail : [techstaff@transgenic.co.jp](mailto:techstaff@transgenic.co.jp)