

Rat Metallothionein, MT ELISA Kit | MT elisa kit

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CATALOG #
AAA80037

REACTIVITY
Rat

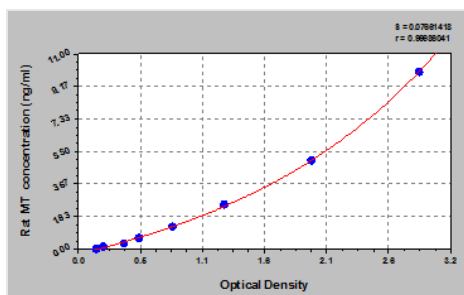
PRODUCT SYNONYMS

Metallothionein; MT; Rat Metallothionein; MT ELISA Kit; MT elisa kit

PRODUCT SPECIFICATIONS

Reactivity	Rat
Sequence Length	63
Samples	Serum, plasma and tissue homogenates
Detection Range	0.156 ng/ml-10 ng/ml
Sensitivity	0.039 ng/ml
Detection Wavelength	450 nm
Sample Volume	50-100ul
Preparation and Storage	Unopened test kits should be stored at 2 to 8 degree C upon receipt. Please refer to pdf manual for further storage instructions.

IMAGES



Standard Curve (Sample)

ADDITIONAL INFORMATION

Related Product Information for MT elisa kit

Introduction: Metallothionein (MT) is a family of cysteine-rich, low molecular weight (MW ranging from 3500 to 14000 Da) proteins. MT have the capacity to bind both physiological (Zn, Cu, Se,...) and xenobiotic (Cd, Hg, Ag,...) heavy metals through the thiol group of its cysteine residues, which represents nearly the 30% of its amino acidic residues. MT was discovered in 1957 by Vallee and Margoshe from purification of a Cd-binding protein from horse (equine) renal cortex. MTs are present in a vast range of taxonomic groups, ranging from prokaryotes, protozoa, plants, yeast, invertebrates and vertebrates. The MTs from this diverse taxonomic range represent a high-heterogeneity sequence (regarding molecular weight and number and distribution of Cys residues) and do not show general homology; in spite of this, homology is found inside some taxonomic groups (such as vertebrate MTs). MT function is not clear, but experimental data suggest MT may provide protection against metal toxicity, be involved in regulation of physiological metals (Zn and Cu) and provide protection against oxidative stress. There are four main isoforms expressed in humans. In the human body, large quantities are synthesised primarily in the liver and kidneys. Their production is dependent on availability of the dietary minerals, as zinc, copper and selenium, and the amino acids histidine and cysteine.

Principle of the Assay: The microtiter plate provided in this kit has been pre-coated with an antibody specific to MT. Standards or samples are then added to the appropriate microtiter plate wells with a biotin conjugated polyclonal antibody preparation specific for MT and Avidin conjugated to Horseradish Peroxidase (HRP) is added to each microplate well and incubated. Then a TMB (3,3',5,5' tetramethyl-benzidine) substrate solution is added to each well. Only those wells that contain MT, biotin-conjugated antibody and enzyme-conjugated Avidin will exhibit a change in color. The enzyme-substrate reaction is terminated by the addition of a sulphuric acid solution and the color change is measured spectrophotometrically at a wavelength of 450 nm +/- 2 nm. The concentration of MT in the samples is then determined by comparing the O.D. of the samples to the standard curve.

NCBI AND UNIPROT INFORMATION

NCBI GI #	46048711
NCBI GeneID	396212
NCBI Accession #	NP_990606.1
NCBI GenBank Nucleotide #	NM_205275.1
UniProt Accession #	P68497 ; P09576
Molecular Weight	6,462 Da
NCBI Official Full Name	metallothionein
NCBI Official Synonym Full Names	metallothionein 4
NCBI Official Symbol	MT4
NCBI Official Synonym Symbols	MT2A
NCBI Protein Information	metallothionein; MT; metallothionein 2A
UniProt Protein Name	Metallothionein
UniProt Gene Name	MT
UniProt Synonym Gene Names	MT
UniProt Entry Name	MT_CHICK

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/rat-elisa-kits/metallothionein-mt/80037>