

Metallothionein 3 (1F11): sc-293488

BACKGROUND

Metallothionein (MT) is a sulfhydryl- and cysteine-rich protein found in microorganisms, plants and all invertebrate and vertebrate animals. Metallothioneins are a group of ubiquitous low-molecular-weight proteins that have functional roles in cell growth, repair and differentiation. Metallothionein are implicated primarily in metal ion detoxification as they are essential for the protection of cells against the toxicity of cadmium, mercury and copper. Metallothioneins are known to be broadly expressed in heart, liver, kidney, breast and testis tissue. Metallothionein 3, also known as MT-3 or GIFB (growth inhibitory factor), is a 68 amino acid protein that belongs to the type 1 family and Metallothionein superfamily. While highly expressed in astrocytes of the normal human brain, Metallothionein 3 expression is reduced in the brains of patients with Alzheimer disease.

REFERENCES

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STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.

CHROMOSOMAL LOCATION

Genetic locus: MT3 (human) mapping to 16q12.2.

SOURCE

Metallothionein 3 (1F11) is a mouse monoclonal antibody raised against amino acids 1-68 representing full length Metallothionein 3 of human origin.

PRODUCT

Each vial contains 100 µg IgG_{2b} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

Metallothionein 3 (1F11) is recommended for detection of Metallothionein 3 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for Metallothionein 3 siRNA (h): sc-93438, Metallothionein 3 shRNA Plasmid (h): sc-93438-SH and Metallothionein 3 shRNA (h) Lentiviral Particles: sc-93438-V.

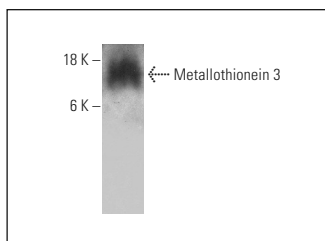
Molecular Weight of Metallothionein 3: 7 kDa.

Positive Controls: human brain tissue extract.

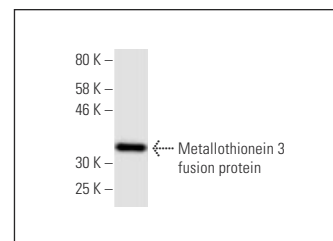
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

DATA



Metallothionein 3 (1F11): sc-293488. Western blot analysis of Metallothionein 3 expression in human brain tissue extract.



Metallothionein 3 (1F11): sc-293488. Western blot analysis of human recombinant Metallothionein 3 fusion protein.

RESEARCH USE

For research use only, not for use in diagnostic procedures.