

ME-1 (G-7): sc-518259

BACKGROUND

ME-1 (male-enhanced antigen 1), also known as MEA or HYS, is a 185 amino acid protein that is highly expressed in testis, where it is thought to play a role in spermatogenesis and testicular development. The gene encoding ME-1 maps to human chromosome 6p21.1. Making up nearly 6% of the human genome, chromosome 6 contains around 1,200 genes within 170 million base pairs of sequence. Deletion of a portion of the q arm of chromosome 6 is associated with early onset intestinal cancer suggesting the presence of a cancer susceptibility locus. Porphyria cutanea tarda is associated with chromosome 6 through the HFE gene, and when mutated, predisposes an individual to developing this porphyria. Notably, the PARK2 gene, which is associated with Parkinson's disease, and the genes encoding the major histocompatibility complex proteins, which are key molecular components of the immune system and help determine predisposition to rheumatic diseases, are also located on chromosome 6.

REFERENCES

1. Lau, Y.F., et al. 1987. Male-enhanced expression and genetic conservation of a gene isolated with an anti-H-Y antibody. *Trans. Assoc. Am. Physicians* 100: 45-53.
2. Lau, Y.F., et al. 1989. Male-enhanced antigen gene is phylogenetically conserved and expressed at late stages of spermatogenesis. *Proc. Natl. Acad. Sci. USA* 86: 8462-8466.
3. Ohinata, Y., et al. 2002. Male-enhanced antigen-1 gene flanked by two overlapping genes is expressed in late spermatogenesis. *Biol. Reprod.* 67: 1824-1831.
4. Ohinata, Y., et al. 2003. Peas-Mea1-Ppp2r5d overlapping gene complex: a transposon mediated-gene formation in mammals. *DNA Res.* 10: 79-84.
5. Cesari, R., et al. 2003. Parkin, a gene implicated in autosomal recessive juvenile parkinsonism, is a candidate tumor suppressor gene on chromosome 6q25-q27. *Proc. Natl. Acad. Sci. USA* 100: 5956-5961.

CHROMOSOMAL LOCATION

Genetic locus: MEA1 (human) mapping to 6p21.1.

SOURCE

ME-1 (G-7) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 20-46 of ME-1 of human origin.

PRODUCT

Each vial contains 200 µg IgG₃ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

ME-1 (G-7) is available conjugated to agarose (sc-518259 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-518259 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-518259 PE), fluorescein (sc-518259 FITC), Alexa Fluor[®] 488 (sc-518259 AF488), Alexa Fluor[®] 546 (sc-518259 AF546), Alexa Fluor[®] 594 (sc-518259 AF594) or Alexa Fluor[®] 647 (sc-518259 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-518259 AF680) or Alexa Fluor[®] 790 (sc-518259 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

ME-1 (G-7) is recommended for detection of ME-1 of human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

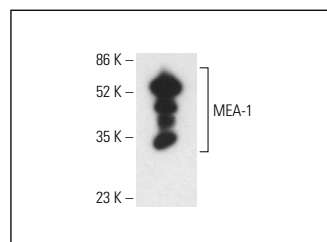
Suitable for use as control antibody for ME-1 siRNA (h): sc-75765, ME-1 shRNA Plasmid (h): sc-75765-SH and ME-1 shRNA (h) Lentiviral Particles: sc-75765-V.

Molecular Weight of ME-1: 20 kDa.

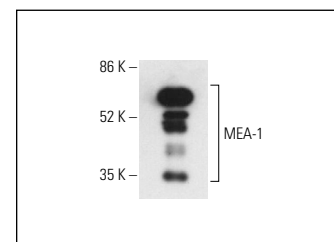
RECOMMENDED SUPPORT REAGENTS

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). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz[®] Mounting Medium: sc-24941 or UltraCruz[®] Hard-set Mounting Medium: sc-359850.

DATA



ME-1 (G-7): sc-518259. Western blot analysis of human recombinant ME-1. Detection reagent used: m-IgGκ BP-HRP: sc-516102.



ME-1 (G-7): sc-518259. Western blot analysis of human recombinant ME-1 fusion protein. Detection reagent used: m-IgG₃ BP-HRP: sc-533670.

STORAGE

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

RESEARCH USE

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

PROTOCOLS

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

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