

# MEI1 (E-19): sc-86732

## BACKGROUND

The predominant cause of spermatogenic arrest of meiosis is the failure of homologous chromosomes to accurately synapse. MEI1 (meiosis inhibitor protein 1), also designated meiosis defective protein 1, is a 1,274 amino acid protein that is likely required for the formation of genetically programmed double-strand breaks, the first step in the initiation of meiosis. With predominant expression in testes, it is likely that defects of the gene encoding MEI1 results in male infertility. Interestingly, studies show that genetic variation in the MEI gene possibly predisposes European Americans but not Israeli men to infertility by meiotic arrest. Human MEI1 shares 79% sequence similarity with its mouse homolog. There are seven isoforms of MEI1 that are produced as a result of alternative splicing events.

## CHROMOSOMAL LOCATION

Genetic locus: MEI1 (human) mapping to 22q13.2; Mei1 (mouse) mapping to 15 E1.

## SOURCE

MEI1 (E-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of MEI1 of human origin.

## PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-86732 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## STORAGE

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

## APPLICATIONS

MEI1 (E-19) is recommended for detection of MEI1 of mouse, rat and 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)], 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).

MEI1 (E-19) is also recommended for detection of MEI1 in additional species, including equine, canine and bovine.

Suitable for use as control antibody for MEI1 siRNA (h): sc-75770, MEI1 siRNA (m): sc-149362, MEI1 shRNA Plasmid (h): sc-75770-SH, MEI1 shRNA Plasmid (m): sc-149362-SH, MEI1 shRNA (h) Lentiviral Particles: sc-75770-V and MEI1 shRNA (m) Lentiviral Particles: sc-149362-V.

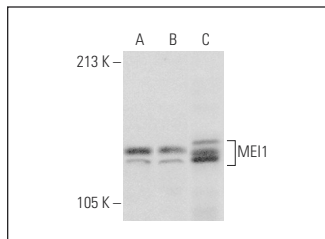
Molecular Weight of MEI1: 141 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, Jurkat whole cell lysate: sc-2204 or rat testis extract: sc-2400.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## DATA



MEI1 (E-19): sc-86732. Western blot analysis of MEI1 expression in HeLa (A) and Jurkat (B) whole cell lysates and rat testis tissue extract (C).

## RESEARCH USE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.


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Try **MEI1 (F-4): sc-515359**, our highly recommended monoclonal alternative to MEI1 (E-19).