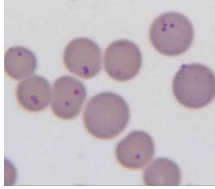


**Anti- Mycoplasma Pulmonis Protein Antibody controls**

<input type="checkbox"/> AE-310500-NC	Mouse Anti-Mycoplasma Pulmonis (Mp) IgG -ve serum	Size: 2 ml
<input type="checkbox"/> AE-310500-PC	Mouse Anti-Mycoplasma Pulmonis (Mp) IgG +ve serum	Size: 2 ml



*Mycoplasma pulmonis* is a gram negative bacteria that lack a cell wall around their cell membrane. *Mycoplasma* species are the smallest bacterial cells yet discovered. Without a cell wall, they are unaffected by many common antibiotics such as penicillin or other beta-lactam antibiotics that target cell wall synthesis.

They can be parasitic or saprotrophic. Several species are pathogenic in humans, including *M. pneumoniae*, which is an important cause of atypical pneumonia and other respiratory disorders, and *M. genitalium*, which is believed to be involved in pelvic inflammatory diseases. *Mycoplasma Pulmonis* is a pleomorphic bacteria that causes illness (pneumonia) primarily in rats and mice, though guinea pigs are susceptible to experimental infection. It primarily colonizes the middle ear and nasopharynx, causing a pneumonia-like illness in its host. Symptoms may include ruffled fur, reluctance to move, weight loss, and reproductive changes. *M. Pulmonis* disseminates widely throughout the host affecting a number of organ systems, thereby rendering infected animals unfit for certain research. Over 100 species have been included in the genus *Mycoplasma*. Mollicutes are parasites or commensals of humans, animals, and plants. The genus *Mycoplasma* uses vertebrate hosts. The severity of lesions in respiratory tissues and mortality due to MRM appears to be species and strain dependent. C57BL/6 mice are less prone to *M. pulmonis* infection than C3H/He and DBA/2 mice. Lewis rats are more susceptible to *M. pulmonis* than F344 rats.

*Mycoplasma* species are often found in research laboratories as contaminants in cell culture. An estimated 11 to 15% of U.S. laboratory cell cultures are contaminated with mycoplasma. European labs and other countries contamination rates are higher (up to 80%). *M. Pulmonis* is among the smallest organisms capable of self-replication, being less than 1 µm in size. All members of the mycoplasma genus lack a cell wall making them difficult to eradicate using traditional antibiotics that target cell wall synthesis, such as penicillin. *M. Pulmonis* has a single, circular 963kb. The bacteria has a membrane that consists of highly adaptable lipoproteins that are used to attach to host cells and for pathogenic invasion. Virulence factors are predicted to be a hemolysin, secreted nucleases, and a glycol-protease. Because *M. Pulmonis* has limited biosynthetic capabilities, these enzymes are also thought to help it acquire metabolic precursors from its host.

*Mycoplasma* was first isolated in 1898 from a species that is a bovine pathogen. *Mycoplasma pulmonis* Kb) is among the first organism to have its genome sequenced due to its small size (963.8 kb). The genome contains 782 putative coding sequences (CDSs) with 482 CDS that could have function assigned and 92 CDS that have sequence matched to hypothetical protein. *M. pulmonis* also have a unique coding in their genome, TGA encodes for tryptophan in *Mycoplasma* but it is a stop codon for other eubacteria.

To diagnose infection, clinical symptoms may be identified for advanced stage mycoplasmosis. Colony surveillance can be accomplished by immunofluorescent antibody tests (IFA), polymerization chain reaction (PCR), and enzyme-linked immunosorbent assay (ELISA). Culture of *M. Pulmonis* may be performed, although the organism has slow growth capabilities.

**Source of M. pulmonis Controls**

Mouse serum containing antibodies to *M. pulmonis* protein as tested by Mouse anti-MP ELISA kit: IgG (#AE-310500-1). Control sera are provided in a stabilizing buffer and 0.05% azide. Store liquid at 4°C for up to 3 months or frozen in suitable size aliquots.

Recommended as positive and negative controls for mouse anti-MP ELISA kit: IgG (#AE-310500-1). Use undiluted in 50-100 µl per well or dilute as necessary depending upon the sensitivity of the detection. The controls may register different values if tested in a kit from a different manufacturer.

**Form & Storage**

Short-term: unopened, undiluted vials for less than a week at 4°C.

Long-term: at -20°C or below in suitable aliquots after reconstitution. Do not freeze and thaw and store working, diluted solutions.

Stability: 6-12 months at -20°C or below.

Shipping: 4°C for solutions and room temp for powder.

**Recommended Usage**

Western Blotting (1:500-1:5K using ECL technique).

ELISA: Control antigen can be used to coat ELISA plates at 1 µg/ml and detected with antibodies (0.5-1 µg/ml for affinity pure).

General References: Barden, JA (1969) *J. bacteriology*. 100(1): 5-10; Davis, JK (1985) *Infection and immunity*. 50(3): 647-54; MCAuliffe, I (2006) *Microbiology* 152 (Pt 4): 913-22.

\*This product is for In vitro research use only.

**Related material available from ADI**

Catalog#	Prod Description
AE-310500-1	Mouse Anti-Mycoplasma Pulmonis (Mp) IgG ELISA Kit, 96 tests
AE-310500-NC	Mouse Anti-Mycoplasma Pulmonis (Mp) IgG -ve serum
AE-310500-PC	Mouse Anti-Mycoplasma Pulmonis (Mp) IgG +ve serum
AE-310510-1	Rat Anti-Mycoplasma Pulmonis (Mp) IgG ELISA Kit, 96 tests
AE-310510-NC	Rat Anti-Mycoplasma Pulmonis (Mp) IgG -ve serum
AE-310510-PC	Rat Anti-Mycoplasma Pulmonis (Mp) IgG +ve serum
AE-310520-1	G. pig Anti-Mycoplasma Pulmonis (Mp) IgG ELISA Kit, 96 tests
AE-310520-NC	G. pig Anti-Mycoplasma Pulmonis (Mp) IgG -ve serum
AE-310520-PC	G. pig Anti-Mycoplasma Pulmonis (Mp) IgG +ve serum
MPUL11-S	Anti-Mycoplasma Pulmonis (Mp) IgG (all antigens)
MPUL15-N-100	Mycoplasma Pulmonis (Mp) protein antigens (mammalian cell produced)
AE-310500-NC-PC-Mouse-M.pulmonis-control	160225SV

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