Langford Locks
Kidlington
Oxford
OX5 1LH
United Kingdom
Tel: +44 (0)1865 595230

Antibody Datasheet

Product Name: Mouse anti Mycoplasma pneumoniae P1

Clone number: 6532

Isotype: Mouse IgG2b

Product code: MAB12280

Batch Number:

Amount: 0.1mg

Concentration: 1 mg/ml

Buffer: Phosphate Buffered Saline pH7.2

Preservative: 0.09% Sodium Azide (NaN_3)

Purification: The antibody was purified by affinity chromatography on protein A

Specificity: This antibody is specific for *Mycoplasma pneumoniae*. It recognises the major adhesin protein P1.

Applications: ELISA, IFA. The antibody is suitable for use as a capture antibody with MAB12283 (6535) in ELISA assays.

Secondary reagents: Goat anti mouse IgG:HRP (PAB21441HRP)

Antigen background: *Mycoplasma pneumoniae* (*M. pneumoniae*) is small atypical bacterium of the Mollicute class, and a member of the family *Mycoplasmataceae. M. pneumoniae* was first isolated by Eaton *et al* in 1944 and is now recognised as a major cause of respiratory tract infection in humans. *Mycoplasma pneumoniae* is an extracellular pathogen that lacks a cell wall and has the capability of reproducing by itself. It infects respiratory epithelium in the upper and lower respiratory tract resulting in the gradual development of disease symptoms.

In order to infect host cells *Mycoplasma pneumoniae* adheres to ciliated epithelium in the respiratory tract, which requires the interaction of several proteins including P1, P30, P116. P1 protein is a major integral surface molecule located at the tip of *Mycoplasma pneumoniae*. It is an immunogen and one of the major adhesins that plays a key role in cytoadherence, motility and virulence (Chourasia BK).

M. pneumoniae infection is self-limiting in most cases but may persist for several months, even after treatment. The clinical symptoms associated with *Mycoplasma pneumoniae* infection are diverse, but the disease is characterised by the onset of fever, headache, general malaise, pharyngitis, tracheobronchitis and a persistent cough that increases in severity. In some cases, infection can result in severe respiratory disease and clinical complications affecting extrapulmonary sites can also occur (Waites KB).

Diagnosis of *Mycoplasma pneumoniae* infection is currently performed using serological or molecular detection methods. However, current methods of detection are time consuming, and lack the sensitivity, and improved assays are needed for rapid point-of-care diagnosis of the disease (CDC).

References:

Chourasia BK, Chaudhry R, Malhotra P. (2014). Delineation of immunodominant and cytadherence segment(s) of Mycoplasma pneumoniae P1 gene. BMC Microbiol. Apr 28;14:108

Waites, KB and Talkington, DF (2004). Mycoplasma pneumoniae and Its Role as a Human Pathogen.Clin Microbiol Rev. 17(4): 697–728.

Center of Disease Control and Prevention: *Mycoplasma pneumoniae* infection, diagnostic methods.

Storage:

Store at +4^{0}C for up to three months, or at -20^{0}C for longer.

The Antibody is shipped at ambient temperature.
Avoid repeated freeze/thaw cycles.