

## Mycoplasma pneumoniae IgA Antibodies in Serum

<b>Specimen Type</b>	Serum
<b>Specimen Volume</b>	1.0 mL
<b>Collection</b>	Red top tube with no additives or serum gel tube. Allow sample to clot for 30 minutes. Centrifuge at 3000 rpm for 10 minutes and pour serum into a transfer tube.
<b>Minimum Volume</b>	0.6 mL
<b>Handling</b>	Ship frozen on dry ice.
<b>Rejection Criteria</b>	<ul style="list-style-type: none"> <li>Specimens outside of listed stability.</li> </ul>
<b>Stability</b>	Refrigerated for 7 days. Frozen for 120 days.
<b>Methodology</b>	ELISA
<b>Reference Range</b>	None Detected < 10 BU/mL
<b>Turnaround Time</b>	Up to 7 business days.
<b>CPT Code</b>	86738
<b>Clinical Significance</b>	Mycoplasma pneumoniae is a bacterium lacking a cell wall. This organism is widely distributed and causes primary atypical pneumonia, often called 'walking pneumonia.' M. pneumoniae can be cultured on artificial media but may take 21-30 days for growth to appear. Both M. pneumoniae IgA antibodies may be used for a rapid and specific identification of this disease.
<b>Principle</b>	This procedure uses a direct ELISA technology. A Mycoplasma pneumoniae ( <i>M.pn</i> ) species-specific antigen is used to coat a microplate. An <i>M.pn</i> IgA standard, <i>M.pn</i> IgA controls, and patient sera are applied to the plate. Anti <i>M.pn</i> antibodies from the samples bind to the immobilized antigen. An HRP (horse radish peroxidase)-labeled secondary antibody that specifically recognizes human IgA is applied. The amount of labeled secondary antibody that becomes bound to the plate is then quantified by addition of HRP substrate, TMB (3,3',5,5'-tetramethylbenzidine). TMB is oxidized by HRP and a color change from clear to blue occurs. An acidic solution is added to stop the reaction. The resulting yellow color is then read on an ELISA reader and a standard curve is generated to calculate patient results.