

Native *C. trachomatis* MOMP Antigen

Cat. No. MOMP-02C **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Native <i>C. trachomatis</i> MOMP Antigen
Species	<i>C. trachomatis</i>
Source	<i>C. trachomatis</i>
Description	Chlamydia is caused by the bacterium <i>Chlamydia trachomatis</i>. The intracytoplasmic inclusions caused by the bacterium are draped around the infected cell's nucleus. <i>Chlamydia trachomatis</i> is an intracellular organism that has a genome size of approximately 500-1000 kilobases and contains both RNA and DNA. The organism is also extremely temperature sensitive and must be refrigerated at 4 centigrade as soon as a sample is obtained. Colonization of <i>Chlamydia</i> begins with attachment to sialic acid receptors on the eye, throat or genitalia. It persists at body sites that are inaccessible to phagocytes, T cells, and B cells. It also exists as 15 different serotypes. These serotypes cause four major diseases in humans: endemic trachoma (caused by serotypes A and C), sexually transmitted disease and inclusion conjunctivitis (caused by serotypes D and K), and lymphogranuloma venereum (caused by serotypes L1, L2, and L3). Studies reveal that <i>Chlamydia</i>, because of its cell wall, is able to inhibit phagolysosome fusion in phagocytes. The cell wall is proposed to be Gram negative in that it contains an outer lipopolysaccharide membrane, but it lacks peptidoglycan in its cell wall. This lack of peptidoglycan is shown by the inability to detect muramic acid and antibodies directed against it. It may, however, contain a carboxylated sugar other than muramic acid. The proposed structure consists of a major outer membrane protein cross linked with disulfide

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bonds. It also contains cysteine rich proteins (CRP) that may be the functional equivalent to peptidoglycan. This unique structure allows for intracellular division and extracellular survival. Chlamydia usually infects the cervix and fallopian tubes of women and the urethra of men. Chlamydial infections are believed to be one of the most common of all STDs. It is generally thought that in a population of 15 million, there are up to 300,000 cases of chlamydia each year. Thus, there are many undiagnosed cases of chlamydia in the community. It has been estimated that the true prevalence of chlamydia in the sexually active population may be in the order of 5% to 10%. Chlamydia is one of the leading causes of blindness in underdeveloped countries.

Form	Liquid
Applications	ELISA
Storage	≤ -70 centigrade
Storage Buffer	10 mM HEPES, 150 mM NaCl, 0.2% OGP, 2 mM DTT, pH 7.0
Handling	After opening, prepare aliquots and store at -20 centigrade. Avoid freeze/thaw cycles. Centrifuge lyophilized vial before opening and reconstitution. For maximum product recovery after thawing, centrifuge the vial before opening the cap.
Shipping	Shipped on Dry Ice

GENE INFORMATION

Gene Name *ompA* major outer membrane porin [*Chlamydia trachomatis* D/UW-3/CX]

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Official Symbol	ompA
Synonyms	ompA; major outer membrane porin; major outer membrane porin; Major Outer Membrane Protein; MOMP; omp1; omp1F; Omp1L1; ompIL2
Gene ID	884473
Protein Refseq	NP_220200
UniProt ID	Q46409

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