Recombinant C. trachomatis MOMP Antigen

Cat. No. MOMP-01C **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Full length Chlamydia trachomais MOMP antigen (without transmembrane domain) was expressed in E. coli.
Species	C.trachomatis
Source	E.coli
Description	Chlamydia is caused by the bacterium Chlamydia trachomatis. The intracytoplasmic inclusions caused by the bacterium are draped around the infected cell's nucleus. Chlamydia trachomatis 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 Chlamydia 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 Chlamydia, 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

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	structure consists of a major outer membrane protein cross linked with disulfide 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.
Purity	>90% proteins is evaluated by SDS-PAGE, by measuring optical density at 280 nm and by method of Bradford et al.
Applications	ELISA, WB
Notes	The products are for laboratory research use or further manufacturing only and should not be used for human therapeutic or diagnostic applications.
Storage	Storage: Long Term: -80 centigrade Short Term: 4 centigrade (Three month or less)
Concentration	1 mg/mL, bulk amount available upon request
Storage Buffer	10 mM Tris-HCl, pH 8.0; 1.5 M Urea; 50% glycerol
Shipping	Cold pack
Full Length	Full L.

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GENE INFORMATION

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