

# CYTOMEGALOVIRUS ANTIGEN



Cytomegalovirus (CMV) is considered one of the most common viral infections in man. The virus rarely causes disease, but may persist as a latent or chronic infection of the salivary glands, renal tubules, cervix, and leukocytes.

PRODUCT #	DESCRIPTION	BUFFER	PROTEIN CONCENTRATION	STORAGE	PACKAGING
7504 CMV	Viral Strain: AD169	0.1M Glycine	0.10 - 0.40mg/mL	-65°C or Below	1, 5, 10, & 100mL Aliquots
7517 CMV EXT 2	Propagated in HF Cells	pH 9.3 - 9.7	(< 10% Viral Protein)		HDPE Plastic Bottles
7090 / 7511 CMV-M	Inactivated		0.30 - 2.0mg/mL (< 10% Viral Protein)		Shipped on Dry Ice
7507 CMV III		0.1M Glycine  pH 9.3 - 9.7	1.0mg/mL  ~ 60% Viral Protein		1, 5, 10, & 100mg Aliquots  HDPE Plastic Bottles  Shipped on Dry Ice

CMV infections are frequent and occasionally severe in children or adults with congenital or acquired defects of cellular immunity, such as patients with AIDS, cancer and recipients of organ transplants. The transmission of CMV via transfused blood may account for the majority of the CMV infections in organ transplant recipients, neonates and heart surgery patients. Medical conditions resulting from Cytomegalovirus infections include: interstitial pneumonia, mononucleosis (heterophile negative), congenital defects, abortion, mental retardation, blindness and deafness.

Meridian Life Science,® Inc. (MLS) supplies a variety of Cytomegalovirus (CMV) antigen, CMV, CMV-M, CMV-EXT 2 and our new CMV Grade III. All antigens are propagated in human fibroblast cells and infected with the viral strain, AD169. The antigen preparations are partially purified to reduce host cell components prior to inactivation by the extraction process or ultraviolet light yielding high sensitivity and low background antigens useful in a variety of solid phase immunoassays.

The various CMV antigens are designed by the extraction process to perform best in either an IgG or an IgM solid phase immunoassay but several of the antigens can be used for both IgG and IgM depending on the application.

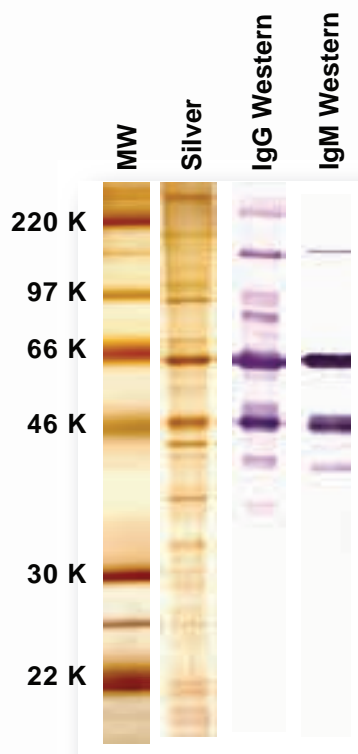
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CMV-M antigens are available at a range of concentrations: #7511 (0.5 - 2.0mg/mL) and #7090 (~1.0mg/mL). The CMV-M antigen process extracts antigens primarily from the nucleus and endoplasmic reticulum of the infected cells to enhance the amount of antigens reacting with the early IgM antibody. In contrast, the entire cell is extracted for the #7504 CMV (0.1 – 0.4mg/mL) antigen.

The CMV EXT2 process for #7517 is designed to select the CMV glycoprotein antigens of the infected fibroblast cells. This enriches for the antigens found on the surface of the cell that react with IgG antibodies.

The new CMV Grade III antigen #7507 is purified by column chromatography to enrich for pp65 along with other CMV antigens, see the graphic below. The chromatography purified CMV Grade III has a higher specific activity after the removal of impurities and strong reactivity for both IgG and IgM sera.



Purified CMV Antigen #7507 showing high levels of pp65 antigen reactive in IgG and IgM assays.

