

**DESCRIPTION**

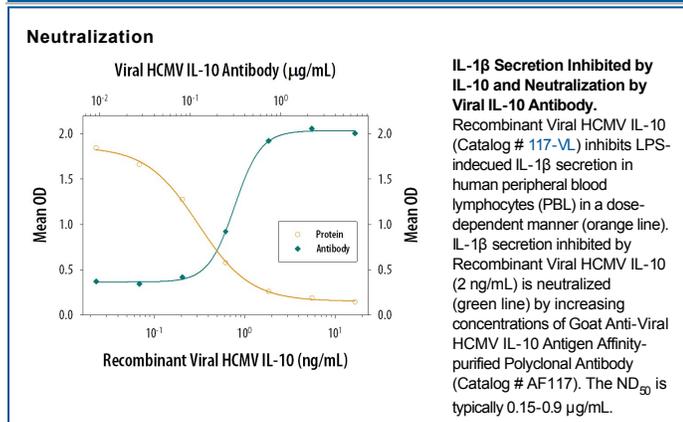
<b>Species Reactivity</b>	Viral
<b>Specificity</b>	Detects viral HCMV IL-10 in direct ELISAs and Western blots. In direct ELISAs, less than 1% cross-reactivity with recombinant mouse IL-10, recombinant canine IL-10, recombinant feline IL-10, recombinant cotton rat IL-10, recombinant rat IL-10, recombinant porcine IL-10, recombinant human IL-10, and recombinant Epstein-Barr virus encoded viral IL-10 is observed.
<b>Source</b>	Polyclonal Goat IgG
<b>Purification</b>	Antigen Affinity-purified
<b>Immunogen</b>	<i>E. coli</i> -derived recombinant viral HCMV IL-10 Ala26-Lys176 Accession # AAF63437
<b>Endotoxin Level</b>	<0.10 EU per 1 µg of the antibody by the LAL method.
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 µm filtered solution in PBS.

**APPLICATIONS**

**Please Note:** Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

	<b>Recommended Concentration</b>	<b>Sample</b>
<b>Western Blot</b>	0.1 µg/mL	Recombinant Viral HCMV IL-10 (Catalog # 117-VL)
<b>Neutralization</b>	Measured by its ability to neutralize IL-10-mediated inhibition of LPS-induced IL-1β secretion in human peripheral blood lymphocytes (PBL). The Neutralization Dose (ND <sub>50</sub> ) is typically 0.15-0.9 µg/mL in the presence of 2 ng/mL Recombinant Viral HCMV IL-10.	

**DATA**



**PREPARATION AND STORAGE**

<b>Reconstitution</b>	Reconstitute at 0.2 mg/mL in sterile PBS.
<b>Shipping</b>	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
<b>Stability &amp; Storage</b>	<b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b> <ul style="list-style-type: none"> <li>● 12 months from date of receipt, -20 to -70 °C as supplied.</li> <li>● 1 month, 2 to 8 °C under sterile conditions after reconstitution.</li> <li>● 6 months, -20 to -70 °C under sterile conditions after reconstitution.</li> </ul>

#### BACKGROUND

Interleukin-10 (IL-10) is a pleiotropic cytokine that plays a crucial role in regulating immune and inflammatory responses (1). It has closely related homologs in the genome of several viruses including the human cytomegalovirus (HCMV), a prevalent pathogen that can remain in humans as a latent infection (2). Viruses use multiple strategies to avoid detection and clearance by the host immune system. One of these strategies is to express virus-encoded host cytokine homologs, such as IL-10, to modulate the host immune system to the virus' advantage. HCMV IL-10 is encoded from noncontiguous stretches in the viral genome and is transcribed early during infection. It shares 27% amino acid sequence identity with the endogenous human IL-10. Despite its low homology with the human protein, it can bind to the human IL-10 receptor complex and induces signal transduction. HCMV IL-10 has been shown to suppress cytokine production and inhibit proliferation of mitogen-stimulated human peripheral blood mononuclear cells. HCMV IL-10 can also down regulate the antigen-presenting and accessory cell functions of human monocytes. These immunosuppressive properties of HCMV IL-10 likely contribute to immune evasion during virus infection (3).

#### References:

1. Moore, K.W. *et al.* (2001) *Annu. Rev. Immunol.* **19**:683.
2. Kotenko, S.V. *et al.* (2000) *Proc. Natl. Acad. Sci. USA* **97**:1695.
3. Spencer, J.V. *et al.* (2002) *J. Virol.* **76**:1285.