Viral IL-10 Alexa Fluor® 488-conjugated Antibody

Antigen Affinity-purified Polyclonal Goat IgG
Catalog Number: AF117G
100 µg

DESCRIPTION

Species Reactivity	Viral
Specificity	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
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	*E. coli*-derived recombinant viral HCMV IL-10 Ala26-Lys176 Accession # AAF63437
Conjugate	Alexa Fluor 488 Excitation Wavelength: 488 nm Emission Wavelength: 515-545 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

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.*

Neutralization	Optimal dilution of this antibody should be experimentally determined.
Western Blot	Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

BACKGROUND

Interleukin-10 (IL-10) is a pleiotropic cytokine that plays a crucial role in regulating immune and inflammstory 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).

PRODUCT SPECIFIC NOTICES

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