



Recombinant Epstein Barr virus IL-10 Protein (DAGC009)

This product is for research use only and is not intended for diagnostic use.

PRODUCT INFORMATION

Product Overview	E. coli derived, Gln26-Arg170, with an N terminal Met
Species	EBV
Purity	>97%, by SDSP AGE under reducing conditions and visualized by silver stain
Conjugate	Unconjugated
Molecular Weight	17.2 kDa
Reconstitution	Reconstitute at 10 µg/mL in sterile PBS containing at least 0.1% human or bovine serum albumin.
Bio-activity	Measured in a cell proliferation assay using MC/92 mouse mast cells. The ED50 for this effect is 315 ng/mL.
Endotoxin	<1.0 EU per 1 µg of the protein by the LAL method.
Format	Lyophilized
Size	10 µg
Buffer	Lyophilized from a 0.2 µm filtered solution in Tris and NaCl with BSA as a carrier protein
Preservative	None
Storage	12 months from date of receipt, -20 to -70°C as supplied. 1 month, 2 to 8°C under sterile conditions after reconstitution. 3 months, -70°C under sterile conditions after reconstitution.
Ship	The product is shipped at ambient temperature.

BACKGROUND

Introduction

Interleukin 10 (IL10) is a pleiotropic cytokine that plays an important role in regulating inflammatory and immune responses. It is a potent suppressant of proinflammatory cytokine production by monocytes/macrophages and neutrophils. It is also an inhibitor of macrophage and T cell effector functions. Homologs of mammalian IL10 have been identified in the genome of several viruses, including EpsteinBarr virus (EBV), poxvirus Orf, baboon cytomegalovirus, and human and equine herpes virus. In the EBV genome, the BCRF1 open reading frame encodes the EBV IL10 (vIL10). The viral IL10 precursor is a 170 amino acid residue (aa) protein with a putative 25 aa signal peptide that is cleaved to yield the 145 aa mature protein. The EBV IL10 precursor shares approximately 78% and 65% amino acid sequence homology with human and mouse IL10, respectively. Most of the deviations are localized to the signal peptide and the first 20 aminoterminal residues. Viral IL10 is expressed during the late phase of the lytic cycle of EBV infection. Viral IL10 is a partial agonist of mammalian IL10 and shares many of their activities. It is likely that vIL10 may have a role in host immune evasion.

Keywords

Interleukin 10; IL10; EpsteinBarr virus; EBV; EBV IL10; EBV IL-10; IL-10