

Active Recombinant Vaccinia virus B19R Protein, Fc-tagged, Biotinylated

Cat. No. B19R-174 Lot. No. (See product label)

SPECIFICATION

Product Overview	Recombinant Vaccinia virus B19R(His20-Glu351) fused with Fc of Human IgG1 at N-terminal was expressed in HEK293, Biotinylated.
Species	VACV
Source	HEK293
ProteinLength	His20-Glu351
Description	B19R is a 60-65 kDa protein encoded by the Vaccinia virus genome and by the genomes of other orthopoxviruses. Its function represents one of several mechanisms used by these viruses to evade the host immune response. It is known as B19R in the Copenhagen strain of Vaccinia and as B18R in the Western Reserve (WR) strain. There is a structurally-unrelated, larger Vaccinia protein that is also known as B18R that contains multiple ankyrin-like repeats. B19R, however, contains three immunoglobulin-like domains and shows homology to human, mouse, and bovine type I interferon receptors. The Wyeth strain of Vaccinia virus encodes a truncated protein that lacks the C-terminal Ig-like domain, and B19R is functionally absent in the Lister strain. B19R functions as a decoy receptor for type I interferons (IFN alpha, beta, omega). It binds to type I interferons from multiple species and prevents IFN signaling through its receptors. B19R binds to the surface of virus infected and uninfected cells where it retains its capacity to bind and neutralize IFN. It shields those cells from the antiviral effects of type I interferons, thereby enabling virus

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replication and pathogenicity. B19R also limits the effectiveness of IFN alpha produced following TLR activation, and it limits adaptive T cell responses.

Predicted N Terminal	Met
Form	Lyophilized from a 0.2 µm filtered solution in PBS.
Bio-activity	Measured by its ability to inhibit Type-I IFN-mediated anti-viral activity. Symons, J.A. et al. (1995) Cell 81:551. The ED50 for this effect, as measured by inhibition of Recombinant Human IFN- alpha 2, is 0.3-1.8 ng/mL.
Molecular Mass	65 kDa (unlabeled)
Endotoxin	<0.10 EU per 1 µg of the protein by the LAL method.
Purity	>90%, by SDS-PAGE visualized with Silver Staining and quantitative densitometry by Coomassie® Blue Staining.
Notes	Structure / Form: Disulfide-linked homodimer, biotinylated via sugars
Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. 12 months from date of receipt, -20 to -70 centigrade as supplied. 1 month, 2 to 8 centigrade under sterile conditions after reconstitution. 3 months, -20 to -70 centigrade under sterile
Reconstitution	Reconstitute at 250 µg/mL in PBS.
Conjugation	Biotin

GENE INFORMATION

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Gene Name	B19R temporal expression: early [Vaccinia virus]
Official Symbol	B19R
Synonyms	B19R; temporal expression: early
Gene ID	3707577
UniProt ID	P25213

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