

HSV-1 gD (residues 266-394)

Herpes Simplex Virus-1 glycoprotein D
recombinant, *E. coli*

Cat. No.	Amount
PR-1108-1	1 mg

For *in vitro* use only
Quality guaranteed for 12 months
Store at -20°C

Avoid freeze / thaw cycles

Form

Liquid. Supplied in 25 mM Tris-HCl pH 8.0, 5 mM Glutathione, 1.5 M urea and 50% glycerol.

Protein synonyms/aliases

Glycoprotein D precursor.

Application

Recombinant rHSV-1 gD Antigen may be used in ELISA and Western blots, excellent for detection of HSV with minimal specificity problems.

Specificity

Immunoreactive with sera of HSV-infected individuals.

Purity

>95% by SDS-PAGE

Description

Recombinant HSV-1-gD contains the immunodominant regions of glycoprotein D, amino acids: 266-394. HSV-1-gD is purified by proprietary chromatographic techniques.

Background

The current view of herpes simplex virus (HSV) entry into host cells is that following attachment of the virus particle to cell surface glycosaminoglycans, the virus envelope fuses with the plasma membrane, releasing the tegumented nucleocapsid into the cytoplasm. This process is mediated by virion glycoproteins and viruses that lack gB, gD or the gHL heterodimer are unable to enter cells. Glycoprotein D (gD) of herpes simplex virus type 1 is a type 1 membrane protein in the virus envelope that binds to receptor molecules on the cell surface and which induces cell-cell fusion when co-expressed with gB, gH and gL.

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Selected References:

Browne *et al.* (2003) Analysis of the role of the membranespanning and cytoplasmic tail domains of herpes simplex virus type 1 glycoprotein D in membrane fusion. *J. Gen. Virol.* **84**:1085.

Frye *et al.* (2002) The efficacy of a DNA vaccine encoding herpes simplex virus type 1 (HSV-1) glycoprotein D in decreasing ocular disease severity following corneal HSV-1 challenge. *Arch. Virol.* **147**:1747.

van Kooij *et al.* (2002) High level expression and secretion of truncated forms of herpes simplex virus type 1 and type 2 glycoprotein D by the methylotrophic yeast *Pichia pastoris*. *Protein Expr. Purif.* **25**:400.

Connolly *et al.* (2001) Glycoprotein D homologs in herpes simplex virus type 1, pseudorabies virus, and bovine herpes virus type 1 bind directly to human HveC (nectin-1) with different affinities. *Virology* **280**:7.

Rogers *et al.* (2000) Targeted delivery of DNA encoding herpes simplex virus type-1 glycoprotein D enhances the cellular response to primary viral challenge. *Arch. Dermatol. Res.* **292**:542.

Coyle *et al.* (2000) Description of a nonlethal herpes simplex virus type 1 glycoprotein D deletion mutant affecting a site frequently used for PCR. *Clin. Diagn. Lab. Immunol.* **7**:322.