

RV gE2 (residues 31-105) Rubella Virus Envelope Glycoprotein E2 recombinant, *E. coli*

Cat. No.	Amount
PR-1229	100 µg

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

Avoid freeze / thaw cycles

Form

Liquid. Supplied in 20 mM imidazole, 8 M urea and 0.3 M NaCl.

Application

Antigen in ELISA and Western blots, excellent antigen for detection of Rubella virus with minimal specificity problems.

Specificity

Immunoreactive with sera of Rubella virus-infected individuals.

Purity

>95% by SDS-PAGE

Description

The protein contains the Rubella Virus glycoprotein E2 immunodominant regions, amino acids 31-105. The protein is purified by proprietary chromatographic technique.

Background

Rubella virus is an enveloped positivestrand RNA virus of the family *TOGAVIRIDAE*. The genome encodes two open reading frames (ORFs): the 5'-proximal ORF encodes viral nonstructural proteins (NSP) that are responsible for viral genome replication, while the 3'-proximal ORF encodes three virion structural proteins (SP), the capsid protein (CP), and the two envelope glycoproteins, E2 and E1. During virus assembly, the capsid interacts with genomic RNA to form nucleocapsids. The rubella virus (RV) structural proteins: capsid, E2, and E1 are synthesized as a polyprotein precursor. The signal peptide that initiates translocation of E2 into the lumen of the endoplasmic reticulum remains attached to the carboxy terminus of the capsid protein after cleavage by signal peptidase.

Selected References:

- Law *et al.* (2001) Rubella virus E2 signal peptide is required for perinuclear localization of capsid protein and virus assembly. *J. Virol.* **75**:1978.
- Yang *et al.* (1998) Effects of mutations in the rubella virus E1 glycoprotein on E1-E2 interaction and membrane fusion activity. *J. Virol.* **72**:8747.
- Van Sommeren *et al.* (1997) Purification of rubella virus E1-E2 protein complexes by immunoaffinity chromatography. *J. Virol. Methods.* **63**:37.
- Cusi *et al.* (1995) Evaluation of rubella virus E2 and C proteins in protection against rubella virus in a mouse model. *Virus Res.* **37**:199.
- Seto *et al.* (1995) Expression and characterization of secreted forms of rubella virus E2 glycoprotein in insect cells. *Virology.* **206**:736.
- Hobman *et al.* (1995) Targeting of a heterodimeric membrane protein complex to the Golgi: rubella virus E2 glycoprotein contains a transmembrane Golgi retention signal. *Mol. Biol. Cell.* **6**:7.