

RV-C (residues 1-123) Rubella Virus Capsid Protein recombinant, *E. coli*

Cat. No.	Amount
PR-1230	100 µg

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, 10 mM glutathione, 0.2% sarcosyl and 50% glycerol.

Application

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

Specificity

Immunoreactive with all sera of Rubella virus-infected individuals.

Purity

>95% by SDS-PAGE and RP-HPLC

Description

The protein contains the Rubella Virus Capsid C region, amino acids 1-123.

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:

- Chen *et al.* (2004) Rubella virus capsid protein modulates viral genome replication and virus infectivity. *J. Virol.* **78**:4314.
- Tzeng *et al.* (2003) Complementation of a deletion in the rubella virus p150 nonstructural protein by the viral capsid protein. *J. Virol.* **77**:9502.
- Law *et al.* (2003) Phosphorylation of rubella virus capsid regulates its RNA binding activity and virus replication. *J. Virol.* **77**:1764.
- Mohan *et al.* (2002) The N-terminal conserved domain of rubella virus capsid interacts with the C-terminal region of cellular p32 and overexpression of p32 enhances the viral infectivity. *Virus Res.* **85**:151.
- Law *et al.* (2001) Rubella virus E2 signal peptide is required for perinuclear localization of capsid protein and virus assembly. *J. Virol.* **75**:1978.
- Duncan *et al.* (2000) Rubella virus capsid protein induces apoptosis in transfected RK13 cells. *Virology.* **275**:20.