

## Product datasheet for **BIN008**

### Rubella virus (Strain HPV77) Protein

#### Product data:

<b>Product Type:</b>	Native Proteins
<b>Description:</b>	Rubella virus (Strain HPV77) protein, 1 mg
<b>Protein Source:</b>	Vero
<b>Concentration:</b>	lot specific
<b>Purity:</b>	>90% pure by Gradient and ultrafiltration
<b>Buffer:</b>	Presentation State: Purified State: Liquid purified fraction Buffer System: Tris / EDTA, Sucrose Buffer, pH 8.0–8.5
<b>Bioactivity:</b>	Biological: UV Light. Verified by cell culture infectivity assay.
<b>Preparation:</b>	Liquid purified fraction
<b>Applications:</b>	Suitable for use in ELISA and other phase Immunoassays. BIN008 is typically required for IgM antibody testing.
<b>Protein Description:</b>	Rubella Antigen Grade (HPV-77), prepared by the concentration of cell culture fluid from cells infected with Rubella Virus strain HPV77. Propagated in Vero Cells. UV Inactivated.
<b>Note:</b>	Caution: No test guarantees a product to be non-infectious. All materials should be handled as if potentially infectious. Generally accepted laboratory practices appropriate for infectious materials should be employed when handling this product.
<b>Storage:</b>	Store the antigen at -65°C or below. Avoid multiple freeze/thaw cycles.
<b>Stability:</b>	Shelf life: six months from despatch.



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**Summary:**

Rubella virus is the only member of the Rubrivirus genus of the Togavirus family. Unlike most Togaviruses it is NOT arthropod borne, but is acquired via the respiratory route. It causes German measles ( a mild contagious eruptive disease, capable of producing congenital defects in infants born to mothers infected during the first three months of pregnancy).

Rubella virus is an enveloped positive-strand RNA virus. 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.

Rubella (German Measles) Virus Antigen is medically significant because of its teratogenic effect when contracted by childbearing women. Maternal infection, especially during the first trimester of pregnancy, can result in a range of congenital birth defects including deafness, cataracts, diabetes and cardiac and bone abnormalities.

The characteristic multi-system defects resulting from a Rubella prenatal infection are termed the Congenital Rubella Syndrome (CRS).