

Recombinant Rubella Spike Glycoprotein E1, sFc-tagged

Cat. No. RUB-564 **Lot. No.** (See product label)

SPECIFICATION

Product Overview

Rubella spike glycoprotein E1 is produced by recombinant expression of Rubella structural polyprotein (amino acids 583-1025, NCBI Accession Number NP_062884.1) in HEK293 cells. It contains a 16 amino acid glycine-serine linker followed by a sheep IgG Fc region (CH2-CH3) at the C-terminus of the protein.

Tag sheep Fc

Background

Rubella virus is an enveloped, positive single-stranded RNA virus and a member of the genus Rubivirus, which belongs to the Togaviridae family. It consists of three structural proteins: a capsid protein and two membrane-spanning glycoproteins, E1 and E2, localized in the virus envelope (Oker-Blom, et al., 1983).

E1 and E2 exist as a heterodimer and form the viral spike complexes on the virion surface. Formation of an E1-E2 heterodimer is required for transport of E1 out of the endoplasmic reticulum lumen to the Golgi apparatus and plasma membrane (Yang, et al., 1998). E1 is the dominant surface molecule of the virus particle representing the main target for the detection and subsequent elimination of virus by the host's immune system (Green & Dorsett, 1986; Wolinsky, et al., 1983). Although both E1 and E2 provide lifelong immunity, hemagglutination (HA) and viral neutralization (VN) is believed to be mainly targeted to E1 protein epitopes (Chaye, et al., 1992).

Immunogenicity studies have shown Rubella VLPs to be significantly more active than soluble E1 protein in inducing antibody responses in mice, especially for producing VN and HA-inhibiting activity. VLPs containing E1 have also been shown to stimulate cell-mediated immune responses to Rubella virus and Rubella virus structural proteins, which may be important in providing protective immunity against

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	infection.
Purity	Greater than 95% purity
Sequence Strain	F-Therien
Formulation	Dulbecco's PBS (DPBS)pH7.4,0.1% CHAPS.
Stability	At +4 centigrade: Not determined. At -80 centigrade: Not determined.
Freezing	Can be frozen, but avoid multiple freeze/thaw cycles.
Storage	Short Term Storage: +4 centigrade Long Term Storage: -80 centigrade
Concentration	0.21 mg/mL
Notes	This product is intended for research and manufacturing uses only. It is not a diagnostic device. The user assumes all responsibility for care, custody and control of the material, including its disposal, in accordance with all regulations.
Type	Recombinant
ClassID 1	Infectious Disease
GENE INFORMATION	
Synonyms	Rubella Spike Glycoprotein E1 (Strain F-Therien)

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