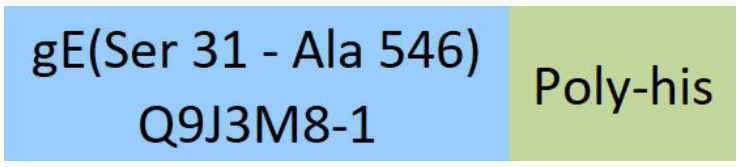
Varicella zoster virus (strain Oka vaccine) Envelope Glycoprotein E (gE), His Tag (MALS verified)

Catalog # GLE-V52H3

Source

Varicella zoster virus (strain Oka vaccine) Envelope Glycoprotein E (gE), His Tag(GLE-V52H3) is expressed from human 293 cells (HEK293). It contains AA Ser 31 - Ala 546 (Accession # Q9J3M8-1).
Predicted N-terminus: Ser 31

Molecular Characterization



This protein carries a polyhistidine tag at the C-terminus.

The protein has a calculated MW of 60.2 kDa. The protein migrates as 54-69 kDa when calibrated against Star Ribbon Pre-stained Protein Marker under non-reducing (NR) condition (SDS-PAGE) due to glycosylation.

Endotoxin

Less than 1.0 EU per μg by the LAL method.

Purity

>90% as determined by SDS-PAGE.

>90% as determined by SEC-MALS.

Formulation

Lyophilized from 0.22 μm filtered solution in PBS, pH7.4 with trehalose as protectant.

Contact us for customized product form or formulation.

Reconstitution

Please see Certificate of Analysis for specific instructions.

For best performance, we strongly recommend you to follow the reconstitution protocol provided in the CoA.

Storage

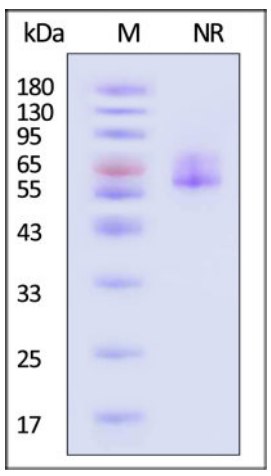
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

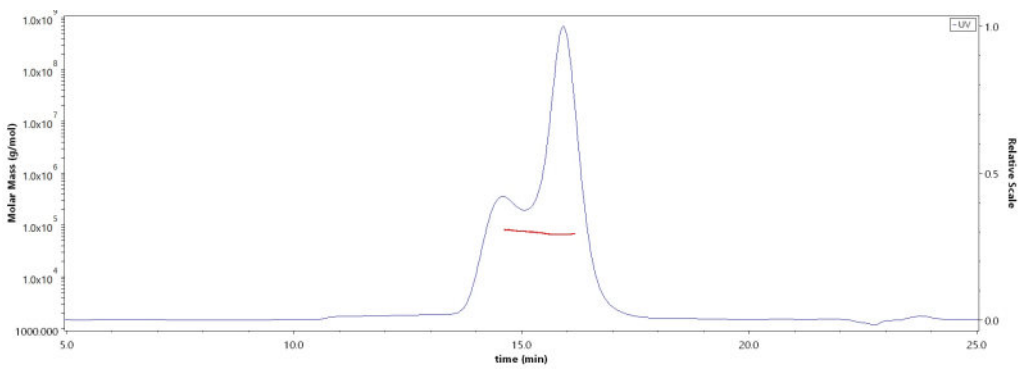
- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

SDS-PAGE



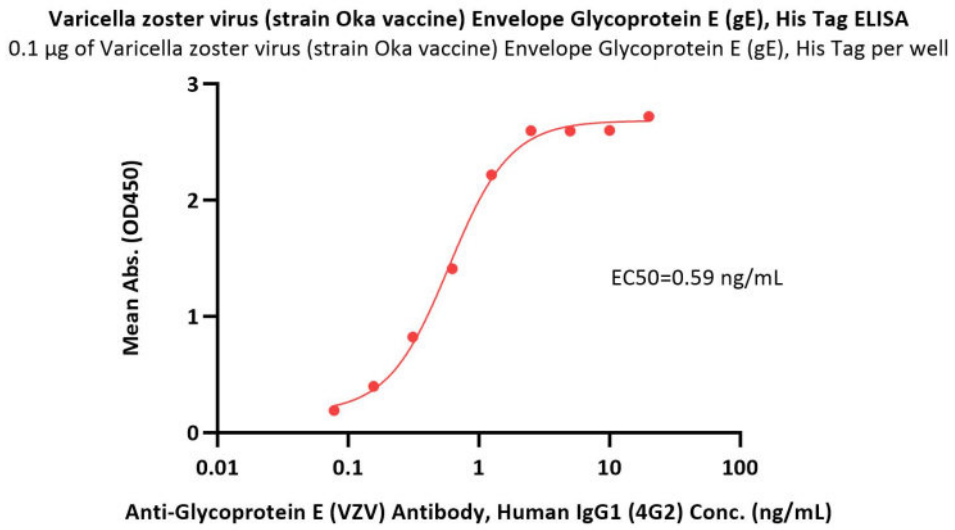
Varicella zoster virus (strain Oka vaccine) Envelope Glycoprotein E (gE), His Tag on SDS-PAGE under non-reducing (NR) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 90% (With Star Ribbon Pre-stained Protein Marker).

SEC-MALS



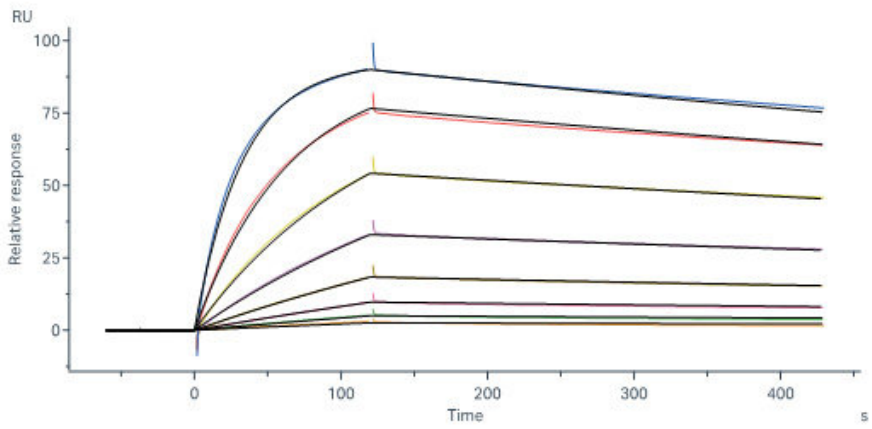
The purity of Varicella zoster virus (strain Oka vaccine) Envelope Glycoprotein E (gE), His Tag (Cat. No. GLE-V52H3) is more than 90% and the molecular weight of this protein is around 60-85 kDa verified by SEC-MALS.
Report

Bioactivity-ELISA



Immobilized Varicella zoster virus (strain Oka vaccine) Envelope Glycoprotein E (gE), His Tag (Cat. No. GLE-V52H3) at 1 μg/mL (100 μL/well) can bind Anti-Glycoprotein E (VZV) Antibody, Human IgG1 (4G2) with a linear range of 0.08-1 ng/mL (QC tested).

Bioactivity-SPR



Anti-Glycoprotein E (VZV) Antibody, Human IgG1 (4G2) captured on Protein A Chip can bind Varicella zoster virus (strain Oka vaccine) Envelope Glycoprotein E (gE), His Tag (Cat. No. GLE-V52H3) with an affinity constant of 4.81 nM as determined in SPR assay (Biacore 8K) (Routinely tested).

Background

Varicella-zoster virus (VZV) is a neurotropic virus belonging to the Herpesviridae family. Primary VZV infection causes chickenpox and is followed by a life-long latent infection established mainly in the cranial and dorsal root ganglia. Reactivation of the virus is often associated with shingles (herpes zoster).

Glycoprotein E (gE) is one of the known glycoproteins (gB, gC, gE, gH, gI, gK, gI) of VZV that is most abundantly expressed on the surface of virus and infected cells, playing an important role in viral replication and cell-to-cell spread. The strongly immunogenic gE can provide strong IgG signal in body fluid, which makes it ideal to be developed as an antigen for analysis of IgG antibodies. gE also demonstrates high potency as a vaccine immunogen and is formulated as the single viral envelope protein that constitutes the GSK VZV recombinant subunit vaccine Shingrix®.

Clinical and Translational Updates