

**DESCRIPTION**

**Source** Human embryonic kidney cell, HEK293-derived  
Glu384-Glu661, with a C-terminal 6-His tag  
Accession # NP\_671491

**N-terminal Sequence Analysis** Glu384

**Predicted Molecular Mass** 31 kDa

**SPECIFICATIONS**

**SDS-PAGE** 63-74 kDa, reducing conditions

**Activity** Measured by its binding ability in a functional ELISA.  
When Recombinant Human CD81 LEL Fc Chimera (Catalog # 9144-CD) is coated onto a microplate at 2 µg/mL, Recombinant Viral HCV E2 binds with an ED<sub>50</sub> of 0.2-1.2 µg/mL.

**Endotoxin Level** <0.10 EU per 1 µg of the protein by the LAL method.

**Purity** >95%, by SDS-PAGE visualized with Silver Staining and quantitative densitometry by Coomassie® Blue Staining.

**Formulation** Lyophilized from a 0.2 µm filtered solution in PBS. See Certificate of Analysis for details.

**PREPARATION AND STORAGE**

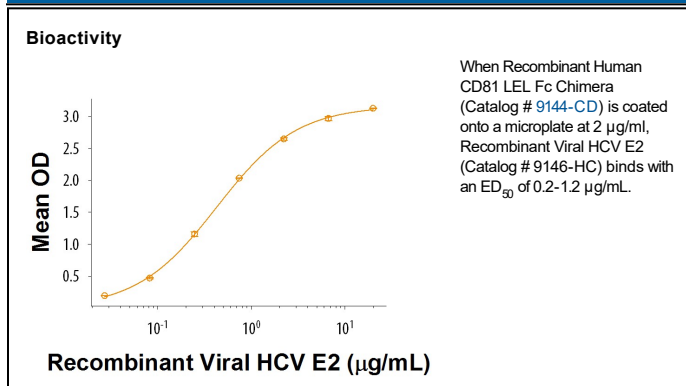
**Reconstitution** Reconstitute at 100 µg/mL in PBS.

**Shipping** The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.

**Stability & Storage** **Use a manual defrost freezer and avoid repeated freeze-thaw cycles.**

- 12 months from date of receipt, -20 to -70 °C as supplied.
- 1 month, 2 to 8 °C under sterile conditions after reconstitution.
- 3 months, -20 to -70 °C under sterile conditions after reconstitution.

**DATA**



**BACKGROUND**

Glycoprotein E2 is an approximately 60 kDa viral envelope protein encoded by the hepatitis C virus (HCV) genome (1-3). HCV infection is closely associated with the development of hepatocellular carcinoma and cirrhosis of the liver. E2 is a transmembrane molecule expressed as a noncovalent dimer with the E1 glycoprotein (4). It binds to CD81 and CD36/SR-BI on hepatocytes, and glycosylation of E2 is important for this interaction (4-8). The virus also requires target cell expression of the tight junction proteins Claudin-1 and Occludin for infectivity (7, 9, 10). CD81 and Occludin are responsible for the human host cell specificity of HCV (10). E2 binding to CD81 on NK cells inhibits cytokine production and cytolytic activity (11, 12). In contrast, E2 binding to CD81 on T cells provides a costimulatory signal (11, 12). On plasmacytoid dendritic cells, E2 binds to CD81 as well as BDCA-2 and DCIR, resulting in inhibition of IFN- $\alpha$  production and cell maturation (13, 14).

**References:**

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