Product Information

HCV Core Antigen recombinant, expressed in E. coli

Catalog Number H9034
Storage Temperature –20 °C

Product Description
This product is the hepatitis C virus (HCV) core antigen, amino acids 2–192 of the HCV polyprotein, which has been expressed in E. coli as a β-galactosidase tagged protein. The 2–192 region represents the viral precursor polyprotein and HCV core nucleocapsid immunodominant region. The HCV core protein is co-translationally inserted into the endoplasmic reticulum membrane.

The HCV core protein is highly basic and acts as a carrier/chaperone for RNA.1,2 It contains three major domains with particular functions:2

- The N-terminal hydrophilic domain of ~120 amino acids (domain D1), a highly basic region with many positively charged amino acids that is involved mainly in RNA binding
- A hydrophobic domain of ~50 amino acids (domain D2), involved in core association with endoplasmic reticulum membranes and with lipid droplets in mammalian cells, and core folding and oligomerization3
- A signal peptide, containing the final 20 amino acids, for the downstream protein E1

This product of the HCV core antigen fused to the N-terminal of β-galactosidase is a construct of ~136 kDa. It reacts positively with human HCV serum and may be used as a positive control for HCV antibodies in various immunoassay procedures.

This product is supplied as a solution at a concentration of ~1 mg/ml in 20 mM Tris-HCl, pH 8.0, containing 8 M urea and 10 mM β-mercaptoethanol.

Purity: ≥95% (SDS-PAGE)

Precautions and Disclaimer
This product is for R&D use only, not for drug, household, or other uses. Please consult the Safety Data Sheet for information regarding hazards and safe handling practices.

Storage/Stability
This product ships on dry ice and is stable at –20 °C for at least a year. Upon thawing, store at 2–4 °C for one month or as frozen aliquots at –20 °C. Avoid repeated freeze-thaw cycles.

References

GCY,AGW,MAM 08/16-1