



Product Data Sheet

□ Cat # RP-460 Recombinant Hepatitis C Virus Nucleocapsid (core) Genotype-1a **Size:** □ 100 ug

Hepatitis C virus (HCV) is an envelope, single stranded positive sense RNA (9.5 kb) virus belonging to the family of Flaviviridae. HCV has a high rate of replication with approximately one trillion particles produced each day in an infected individual. Due to lack of proofreading by the HCV RNA polymerase, the HCV has an exceptionally high mutation rate, a factor that may help it elude the host's immune response. Six major genotypes and series of subtypes of HCV have been identified. Isolated in 1989, HCV is now recognized as the major cause for transfusion associated non-A, non-B hepatitis. The disease is characterized with acute and chronic form although more than 50% of the infected individuals develop severe, life threatening chronic hepatitis with liver cirrhosis and hepatocellular carcinomas. Since the introduction in 1990 of anti-HCV screening of blood donations, the incidence of this infection in transfusion recipients has been significantly reduced. There is no vaccine for Hepatitis C. The best way to prevent Hepatitis C is by avoiding behaviors that can spread the disease, especially injecting drugs.

Source of antigen

The E. coli derived recombinant protein fused to a His tag at C-terminus contains the HCV core nucleocapsid immunodominant regions, amino acids 2-119. Recombinant HCV Core Genotype1a protein was purified by proprietary chromatographic technique.

Suggested usage

Greater than 98.0% as determined by (a) Analysis by RP-HPLC. (b) Analysis by SDS-PAGE. The interaction of bacterial and recombinant A-layer protein with murine macrophages was directed at determining the effect of A-protein on intracellular events that occur in primed macrophages. This was accomplished by measuring the cytotoxic product produced by peritoneal macrophages when exposed to A-protein coated latex beads. Thioglycolate elicited macrophages exhibited a low level of activation (18% cytotoxicity) that was significantly increased (48% cytotoxicity) in the presence of latex beads. Coating of the latex beads with each of the three A-protein products resulted in an increase of cytotoxicity (mean +/- SEM) from 48% to 91%. Users must optimize the appropriate concentration and conditions for each assay.

Form and Storage

The recombinant protein is supplied in 1.5M urea, 25mM TrisHCl pH 8.0, 0.2% TritonX and 50% Glycerol buffer, as >95% pure as determined by 10% PAGE (coomassie staining).

Short-term: HCV Core Genotype1a although stable at 4°C for 1 week, should be stored below 18°C. Please prevent freeze thaw cycles. Unopened, undiluted vials for less than a week at 40C.

Long-term: at -20C or below in suitable aliquots after reconstitution. Do not freeze and thaw and store working, diluted solutions.

Stability: 6-12 months at -20oC or below.

Specificity: Immunoreactive with sera of HCV infected individuals.

Shipping: 4oC for solutions and room temp for powder.

**This product is for In vitro research use only.*

Related material available from ADI

Catalog#	Description
AB-15610	Mouse Monoclonal Anti-Hepatitis C Virus (HCV) NS3 IgG
AD-119-B	Hepatitis C Virus RdRp (r10/43), DNA Aptamer, Biotinylated
AD-119-F	Hepatitis C Virus RdRp (r10/43), DNA Aptamer, FITC labeled
AD-119-U	Hepatitis C Virus RdRp (r10/43), DNA Aptamer, unlabeled
AR-235-U	Hepatitis C Virus Dependent RNA Polymerase, RNA Aptamer, unlabeled
AR-236-U	Hepatitis C Virus Non-Structural Protein 3 (G9-1), RNA Aptamer, unlabeled
HCV16-R	Recombinant (P. pastoris) Hepatitis C Virus (Hepatitis C Virus (HCV)) core protein (N-term 120 aa, ~16 Kda) (insoluble)
HCV23-R	Recombinant (E. coli) Hepatitis C Virus (Hepatitis C Virus (HCV) Antigen mosaic (Core1b, Core 3g, NS3, NS41, NS411, & NC5) (insoluble)
HNS35-R	Recombinant (E. coli) Hepatitis C Virus (HCV) NS3 protein (insoluble)
HNS36-R	Recombinant (E. coli) Hepatitis C Virus (HCV) NS3 Helicase, protein (soluble)
HNS37-R	Recombinant (E. coli) Hepatitis C Virus (HCV) NS3 1a helicase protein (full length33c) immunodmnant regions (soluble)
HNS55-R	Recombinant (E. coli) Hepatitis C Virus (HCV) NS5 protein, fragments of the NS5 immunodominant regions, (soluble)
RP-457	Recombinant (E.Coli) Hepatitis C Virus (HCV) NS4 a+b, Biotin Labeled
RP-458	Recombinant (E.Coli) Hepatitis C Virus (HCV) Nucleocapsid (core) Genotype-3/10
RP-459	Recombinant (E.Coli) Hepatitis C Virus (HCV) NS4
RP-460	Recombinant (E.Coli, His-tag) Hepatitis C Virus (HCV) Nucleocapsid (core) Genotype-1a
RP-460	161116SV