

## HCV Genotyping

# SPOT ON

Genetic Testing



- Hepatitis C (HCV) is a virus that causes an infection of the liver that is characterized by liver inflammation and damage.
- Hepatitis C virus (HCV) infection has reached epidemic proportions. Worldwide, more than one million new cases of infection are reported annually, and HCV is believed to be more prevalent than hepatitis B virus infection (HBV) <sup>1</sup>.
- In the United States alone, nearly four million persons are infected and 30,000 acute new infections are estimated to occur annually<sup>2</sup>. Currently, HCV is responsible for an estimated 8,000 to 10,000 deaths annually in the United States, and without effective intervention, that number is predicted to triple in the next 10 to 20 years <sup>2</sup>.
- Approximately 75% of Americans with HCV have genotype 1 of the virus (subtypes 1a or 1b), and 20-25% have genotypes 2 or 3, with small numbers of patients infected with genotypes 4, 5, or 6.<sup>3</sup> Most patients with HCV are found to have only one principal genotype, rather than multiple genotypes.<sup>4,5</sup> Genotype 4 is much more common in Africa than in many other parts of the world, genotype 6 is common in Southeast Asia, and each area of the world has its own distribution of genotypes.<sup>6</sup>

### Analytes Detected:

- HCV types: 1, 2, 3, 4, 5, 6, 1a, 1b

### Sample Type

- Blood

### CPT Code(s)

- 87902

### Reference:

1. Cooreman M P, Schoondermark-Van de Ven E M. Hepatitis C virus: biological and clinical consequences of genetic heterogeneity. *Scand J Gastroenterol Suppl.* 1996;218:106–115. [[PubMed](#)]
2. National Institutes of Health Consensus Development Conference Panel. National Institutes of Health Consensus Development Conference Panel statement: management of hepatitis C. *Hepatology.* 1997;26(Suppl. 1):2S–10S. [[PubMed](#)]
3. McHutchison JG, Gordon SC, Schiff ER, et al. Interferon alfa-2b alone or in combination with ribavirin as initial treatment for chronic hepatitis C. *N Engl J Med* 1998; 339:1485-1492.
4. Manns MP, McHutchison JG, Gordon SC, et al. Peginterferon alfa-2b plus ribavirin compared with interferon alfa-2b plus ribavirin for initial treatment of chronic hepatitis C: a randomized trial. *Lancet* 2001; 358:958-965.
5. Fried MW, Shiffman ML, Reddy R, et al. Peginterferon alfa-2a plus ribavirin for chronic hepatitis C virus infection. *N Engl J Med* 2002; 347:975-982.
6. Simmonds P. Genetic diversity and evolution of hepatitis C virus - 15 years on. *J Gen Virol.* 2004;85:3173-88.