

Haptoglobin (Hp)

Haptoglobin genotype is a screening for diabetic patients at risk for cardiovascular disease (CVD). Diabetic patients with Hp2 genotype have a 500% greater risk of a heart attack. Knowing a patient's variant can provide clinicians guidance on measures to reduce heart attack and stroke risk. Additionally, this genotype is an important tool to offer individualized therapeutic advice for all patients, even those without T2 diabetes with diet modifications specifically regarding gluten intake. Haptoglobin (Hp) is an acute phase protein that binds to freely circulating hemoglobin.

Haptoglobin exists as two distinct forms, Hp1 and Hp2. The longer Hp2 form has been associated with cardiovascular disease events and mortality in individuals with type 2 diabetes (T2DM). Hp allele frequency in the western world are 18% for Hp 1-1, 48% for Hp 1-2 and 36% for Hp 2-2.