



## SLC01B1 c.521T>C RealFast™ Assay

The easy way to determine the response to statin therapy and thus avoid dose-dependent adverse events

### Lower risk for simvastatin induced myopathy through established innovations in diagnostics

Statins (e.g. Simvastatin) are most widely prescribed as treatment for low-density lipoprotein cholesterol reduction and control. In general statins are considered as safe and well tolerated drugs. However, some patients experience severe side effects and opt to discontinue therapy. The clinical spectrum may range from frequent pain with or without evidence of muscle degradation to a very rare but severe muscle damage with acute kidney injury (rhabdomyolysis). Patients

carrying the SLC01B1 c.521C allele have a higher risk of simvastatin induced myopathy and rhabdomyolysis. The Clinical Pharmacogenetic Implementation Consortium (CPIC) highly recommends to adjust simvastatin dose according to the SLC01B1 c.521T>C genotype.

The *SLC01B1* gene codes for the solute carrier organic anion transporter family member 1B1 protein and affects the uptake and metabolism of statins in the liver. The risk for simvastatin-related myopathy is dose-dependent and 4 times higher in patients carrying one c.521T>C allele and 17 times higher in homozygous patients (CC).

### ViennaLab RealFast™ Assays

- Fast and easy handling
- Less than 90 min from DNA to result
- Ready-to-use reagents
- Include controls for wild type and mutant genotype
- Compatible with various real-time PCR instruments
- Available in different pack sizes (100 reactions and 32 reactions)

#### REF:

SLC01B1 c.521T>C RealFast™ Assay: 7-210 (100 reactions)

SLC01B1 c.521T>C RealFast™ Assay: 7-213 (32 reactions)

For more details please visit: [www.viennalab.com](http://www.viennalab.com)

**ViennaLab RealFast™ Assays for single marker detection**

Area	Product	REF 100 / 32 Rxn	Label	Application
<b>Carbohydrate Intolerance</b>	<b>LCT -13910C&gt;T</b> RealFast™ Assay	7-150 / 7-153	CE/IVD	Detects the most common polymorphism in the <i>lactase (LCT)</i> gene causing lactase non-persistence
<b>Cardiovascular Diseases (CVD)</b>	<b>FGB -455G&gt;A</b> RealFast™ Assay	7-230 / 7-233	CE/IVD	Identifies homozygosity for the -455G>A <i>fibrinogen beta-chain (FGB)</i> allele which may increase susceptibility to atherothrombosis in at-risk patients
	<b>FV Leiden</b> RealFast™ Assay	7-110 / 7-113	CE/IVD	Detects the most common genetic risk factor associated with venous thromboembolism, the 1691G>A mutation in the <i>Factor V (FV)</i> gene
	<b>FXII 46C&gt;T</b> RealFast™ Assay	7-240 / 7-243	CE/IVD	Identifies patients with the unfavorable TT genotype for <i>Factor XII (FXII)</i> , who may have an increased susceptibility to thrombotic disorders
	<b>FXIII V34L</b> RealFast™ Assay	7-250 / 7-253	CE/IVD	Identifies carriers of the protective 34L variant of Factor XIII (FXIII) among at-risk patients of hereditary thrombophilia
	<b>MTHFR 677C&gt;T</b> RealFast™ Assay	7-160 / 7-163	CE/IVD	Detect common mutations in the <i>methylenetetrahydrofolate reductase (MTHFR)</i> gene causing hyperhomocysteinemia, which is a risk factor for cardiovascular disease
	<b>MTHFR 1298A&gt;C</b> RealFast™ Assay	7-170 / 7-173	CE/IVD	
	<b>PAI-1 4G/5G</b> RealFast™ Assay	7-180 / 7-183	CE/IVD	Detects the 4G risk allele in the <i>plasminogen activator inhibitor-1 (PAI-1)</i> gene, associated with cardiovascular disease and pregnancy complications
	<b>PTH 20210G&gt;A</b> RealFast™ Assay	7-120 / 7-123	CE/IVD	Detects the second most important genetic risk factor for venous thromboembolism in the <i>prothrombin (PTH)</i> gene
<b>Genetic Predisposition</b>	<b>HLA-B27</b> RealFast™ Assay	7-620 / 7-623	CE/IVD	Detects the human leukocyte antigen-B (HLA-B) 27 allele, which is associated with ankylosing spondylitis
<b>Haemochromatosis</b>	<b>HFE C282Y</b> RealFast™ Assay	7-130 / 7-133	CE/IVD	Detect common mutations in the <i>HFE</i> gene causing hereditary haemochromatosis (HH) type 1
	<b>HFE H63D</b> RealFast™ Assay	7-140 / 7-143	CE/IVD	
<b>Pharmacogenetics</b>	<b>HLA-B5701</b> RealFast™ Assay	7-610 / 7-613	CE/IVD	Detects human leukocyte antigen-B (HLA-B) 5701 allele, which is associated with hypersensitivity to the anti-HIV drug abacavir
	<b>IL28B</b> RealFast™ Assay	7-200 / 7-203	CE/IVD	Detects a dinucleotide frame-shift variant coding for interleukin 28B (IL28B) and helps to predict the therapeutic response in Hepatitis C Virus infected patients
	<b>SLC01B1c.521T&gt;C</b> RealFast™ Assay	7-210 / 7-213	CE/IVD	Detects a variant in human <i>solute carrier organic anion transporter family member 1B1 (SLC01B1)</i> gene in patients who are at higher risk for developing statin-induced myopathy
	<b>VKORC1 -1639G&gt;A</b> RealFast™ Assay	7-190 / 7-193	CE/IVD	Detects the most important polymorphism in the <i>Vitamin K Epoxide Reductase Complex 1 (VKORC1)</i> gene associated with interindividual dose requirements for oral anticoagulants

**ViennaLab RealFast™ Assays for multiplex testing - save costs and sample material**

<b>Cardiovascular Diseases (CVD)</b>	<b>FV-PTH mpx</b> RealFast™ Assay	7-115 / 7-118	CE/IVD	Simultaneous detection of the most important thrombophilic mutations 1691G>A in the <i>Factor V</i> gene and 20210G>A in the <i>prothrombin</i> gene
	<b>MTHFR mpx</b> RealFast™ Assay	7-165 / 7-168	CE/IVD	Simultaneous detection of the most common two mutations in the <i>MTHFR</i> gene: 677C>T and 1298A>C
<b>COPD/ AAT deficiency</b>	<b>AAT mpx *)</b> RealFast™ Assay	7-265 / 7-268	CE/IVD	Detects *S and *Z variants of the <i>SERPINA1</i> gene predisposing individuals to chronic obstructive pulmonary disease (COPD) and liver disease due to deficiency of alpha-1 antitrypsin (AAT)
<b>Haemochromatosis</b>	<b>HFE mpx</b> RealFast™ Assay	7-135 / 7-138	CE/IVD	Simultaneous detection of the two most common mutations in the <i>HFE</i> gene: H63D and C282Y
<b>Pharmacogenetics</b>	<b>CYP2C9 mpx *)</b> RealFast™ Assay	7-225 / 7-228	CE/IVD	Simultaneous detection of <i>CYP2C9</i> *2 (c.430C>T) and <i>CYP2C9</i> *3 (c.1075A>C) polymorphisms to determine the drug response of known targets, like S-warfarin or phenytoin

\*) not suitable for ultrafast cycling on the MIC qPCR Cycler

**Additional diagnostic applications that are covered by ViennaLab RealFast™ Assays: Carbamazepine Hypersensitivity, Liquid Profiling, Congenital Adrenal Hyperplasia.**

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