

## CCR2 V64I

(Chemokine receptor CCR2, Valine 64 Isoleucine, G190A on nucleotide level)

The allelic variant of the chemokine receptor CCR2, **CCR2 64I**, which occurs at a frequency of about 10 %, **has been shown to slow down progression rates after HIV-1 seroconversion** for two to four years as compared to individuals homozygous for the wildtype allele CCR2-V64 (1, 2). The G-to-A polymorphism in the coding region of CCR2 causes a switch from valine to isoleucine at position 64 (2). The molecular mechanism resulting in protection of individuals bearing a mutant allele remain speculative, but is certainly independent of the CCR5-del32 genotype variant (2). **Also in other diseases, the CCR2-64I allele has been described as a protective factor** : **In renal transplantation**, the risk of acute transplant rejection was found significantly reduced (odds ratio 0.30) in recipients who possessed the CCR2-64I allele (3). Also, the extent of **coronary artery calcifications** was significantly lower in subjects with the CCR2-64I variant (V/I and I/I genotypes) than in subjects carrying 2 V64 alleles, even after adjustment for traditional risk factors (4). The presence of the CCR2-64I allele was also found to confer a lower risk for the development of **sarcoidosis** (adjusted odds ratio = 0.369 (5)).

## References

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