

Identification of G-174C polymorphism of interleukin-6 (IL6) by real time PCR

AMPLI-set-IL6 Real Time

Cat. n. 1.800RT

The interleukin-6 (IL6) is a pleiotropic cytokine, able to play many pro-inflammation functions. The IL-6 is involved in either acute and chronic response regulation and in the modulation of specific immuno-responses. Many studies suggested to use the plasmatic level of this protein a predictive marker for stroke, hypertension and dyslipidaemia. It was observed that the blood level of IL-6 increased way before the clinical manifestation of the stroke and they were correlated with the disease incidence. The IL-6 gene presents many polymorphism, one in the promoter at the -174 site having a substitution of a G (guanine) with a C (cytosine). Studies carried out on patients with stroke and healthy subjects, show that the polymorphism is a risk factor for stroke. The carriers of C allele have a greater probability to be affected by the disease compared to the no-carriers. The presence of these alleles is correlated with high blood level of IL-6 and it represents a risk for other inflammatory diseases, ex. periodontal disease. The kit allows to identify the -G174C polymorphism of interleukin gene by Real-time PCR. The polymorphism search is performed by amplification with specific primers and hybridisation with a probe able to recognize an internal sequence. In the kit the probe detecting the G allele is labelled with fluorochrome VIC/JOE, while the one detecting C allele is conjugated to fluorochrome FAM.

Principle of method: A) genomic DNA extraction
B) amplification C) revelation by Real-Time PCR

Applicability: on extracted and purified genomic DNA from whole blood, mounth swab.

Number of test: 25.

Stability: more than 18 months if properly stored.

KIT CONTENTS AND STORAGE

AMPLIFICATION

PCR mix 2X	-20°C
Primers-Probe mix 20X	-20°C
H ₂ O sterile	-20°C
Control GG	-20°C
Heterozygous Control GC	-20°C

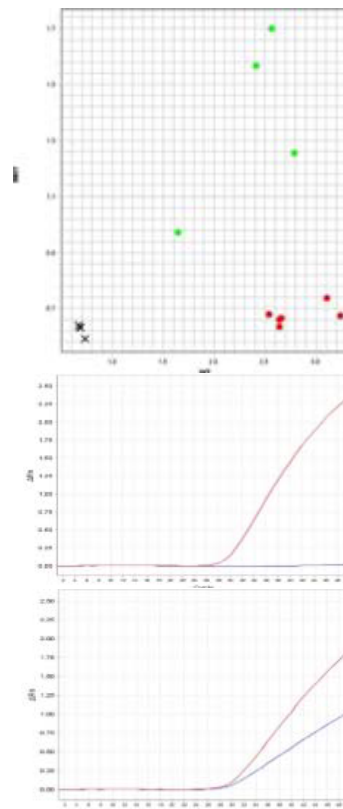
References:

Fishman (1998) J Clin Invest 102, 1369;
Sen Un Mol Vis. 2011; 17: 2552-63. Epub 2011 1 ott..

ANALYSIS OF RESULTS

The analysis of results will be carried out using a specific program (ALLELIC DISCRIMINATION) on the real-time instrument. Anywhere it is useful analyzing the amplification plots, in order to check the amplification reaction

Allelic discrimination -G174C



Legend:
Red: Allele G
Green: Alleli G/C
Blue: Allele C