

DEVELOPMENT OF THE INVESTIGATOR QUANTIPLEX PRO RGQ KIT FOR QPCR-BASED EXAMINATION OF THE QUANTITY AND QUALITY OF HUMAN DNA IN FORENSIC SAMPLES

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Human DNA isolated from various sources has to be assessed in terms of quantity, quality and integrity prior to STR analyses, since these STR multiplexes are complex systems that require a narrowly defined range of input DNA and template quality to perform accurately. As DNA quantification is the only step preceding the STR PCR it is essential to extract as much information as possible from this reaction to aid correct setup of STR reactions. With the new Investigator Quantiplex Pro RGQ quantification assay we can address the amount of amplifiable DNA, the presence of inhibitors and the integrity of DNA samples independently for both total human DNA and male DNA to ensure a high correlation between quantification and STR results. The qPCR assay uses a novel PCR fast-cycling technology and provides rapid, robust and precise quantification and a high sensitivity for male DNA even in the presence of high amounts of female DNA. We will present data from our current development.