A)



B)



**Figure S1.** Discordant variant allele (11.3) at Penta E locus in case of PowerPlex Fusion 6C System (**A**) and PowerPlex 18D System (**B**)

A)

Graphical user interface, text, application, email

Description automatically generated

B)

Chart

Description automatically generated

C)

Graphical user interface, chart

Description automatically generated

**Figure S2.** NGS results of the microvariant 11.3,16 genotype at Penta E with different softwares. (**A**) Converge software v2.2 result including short and long sequence data with coverage. (Because of factory settings only reverse sequence is visible.) (**B**) STR genotyping with STRaitRazor v3 software including bar chart representation of allele calls and coverage. (**C**) Analysis of BAM files using IGV 2.12.2 software including graphical alignment relative to human genome assembly GRCh37 (hg19). IGV reads clearly detect 12 and 16 repeat motifs in the samples (black boxes) without any SNPs or InDels in the repeat structure or in the flanking regions.