

# FORENSIC BIOLOGY PROTOCOLS FOR FORENSIC STR ANALYSIS

Editing Codes		
Status: Published		Document ID: 1114
DATE EFFECTIVE 09/28/2018	APPROVED BY Nuclear DNA Technical Leader	PAGE 1 OF 1

**Artifacts listed below should be unlabeled using the comment “artifact” (code “a”)**  
**For additional detail on artifacts, refer to the STR Results Interpretation Manuals for [PowerPlex Fusion](#) or [Identifiler](#) and [Yfiler](#)**

Artifacts
pull-ups or pull-down of peaks in any color caused by a very high peak of another color in the same basepair range of a sample
shoulder peaks approx. 1-4 bp bigger or smaller than main peak
split peak due to "N" bands
split peak due to matrix over-subtraction
stutter in non-mixtures <sup>1</sup>
peak classified as +/-2 bp artifact <sup>2</sup>
non-specific artifact
labels placed on elevated baselines
spikes or peaks present in all colors in one sample
dye artifact occurring at a constant scan position
peak classified as primer front; low molecular weight artifacts appearing at the very beginning of a dye color
initial peak labels of range removed (use code “→”)

1. Stutter includes: Peaks in non-mixtures in a +/- 1 STR repeat positions for Identifiler®, Yfiler™ or peaks in a +/- 1 STR repeat position in a Fusion® exemplar sample or positive control, or in a +/- 2 STR repeat position in a single source Fusion sample. The height of the possible stutter peak must be compared to the height of the parent allelic peak to determine if it is reasonable to consider it as stutter.

2. This edit is applicable for artifact peaks in the -2 bp position in Fusion® commonly seen in some locations such as D1S1656, D13S317, D18S51, D21S11, D7S820, D5S818, D12S391, and D19S433. For Yfiler™, this edit is applicable for artifacts in the +/-2 bp position at DYS19.

Controlled versions of Department of Forensic Biology Manuals only exist in the Forensic Biology Qualtrax software. All printed versions are non-controlled copies.