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CORRIGENDUM

Corrigendum to GFP to BFP Conversion: A Versatile Assay for the Quantification of CRISPR/Cas9-mediated Genome Editing

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Following publication, the authors noted that a single nucleotide depicting the EGFP sequence in **Figure 1b** and **1c** was missing. Furthermore, in order to keep the length of the homology arms constant, ssODN2 is 7nt longer than ssODN1, which was not stated in the figure legend. The corrected **Figure 1** and legend appear below.

In addition, the complete oligonucleotide sequences used in this study are now included in the **Supplementary Materials and Methods**, attached as **supplementary material** to this corrigendum.

The authors apologize for these omissions and any confusion they may have caused.



BFP Fluorescence intensity

0

Figure 1 HDR template optimization. (a) Multiple sequence alignment between the wtGFP, EGFP, and BFP chromophore regions. A single Y66H amino acid substitution corresponds to a shift in the fluorescence excitation and emission spectra of the protein, converting GFP to BFP. (b) Gene targeting strategy. Two gRNAs, in sense and antisense orientation relative to the EGFP coding sequence, target Cas9 to the EGFP chromophore. Cleavage sites are marked by red indicators, targeted nucleotide is highlighted in green. (c) A dsDNA PCR product amplified from a BFP plasmid (153 base pair) and two ssODN (133 and 140 nucleotides) were used as templates for HDR. Capital letters indicate deviations from the EGFP target sequence. (d) Influence of the HDR template on relative HDR rates. K562-50 cells were coelectroporated with a plasmid encoding Cas9 and either gRNA1 or gRNA2 and different HDR templates. Ten days postelectroporation, HDR and NHEJ were measured as BFP fluorescence and loss of fluorescence, respectively. Graph represents HDR/total editing ratios and SDs of two independent experiments (VA = no HDR template). (e) Fluorescence intensities of HDR products using different HDR templates. The BFP PCR product and ssODN2 yield an HDR product of ~3× greater fluorescence than ssODN1. Histograms show fluorescence intensities of BFP+ cells sorted via fluorescence-activated cell sorting after GFP to BFP conversion with different HDR templates compared with nonfluorescent cells resulting from NHEJ without an HDR template (control).

0

VA

ssODN1

ssODN2

ssODN2

antisense

PCB