Corrigendum: *Drosophila* Brainbow: a recombinase-based fluorescence labeling technique to subdivide neural expression patterns

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Nat. Methods 8, 253–259 (2011); published online 6 February 2011; corrected online 16 February 2011; corrected after print 30 August 2012.

The schematic of the *dBrainbow* vector construct presented in the original Figure 1 of the paper and its description had incorrect epitope tags. This error has not been corrected in the HTML or PDF versions of the article, but a correct version of the figure as well as full details of the error can be found in this corrigendum.

The vector used in the paper and deposited with Addgene contains *UAS-EGFP-HSV*, *EBFP2-HA* and *mKO2-V5* (Fig. 1). Sequences of the fluorescent protein-epitope fusions are included.

The change does not alter the results shown in the paper that were based on using antibodies to EGFP or EBFP2-HA; however, the red channel actually reflects endogenous fluorescence of mKO2 rather than Myc antibody-enhanced staining.

We documented our tests of the epitope tag-antibody combinations: we show expression of *UAS-dBrainbow* in the projection neurons of the olfactory system visualized with endogenous mKO2 (red) and EGFP (green) and antibody to the V5 epitope visualized with Alexa Fluor 633 (blue); the coincidence of red and blue signals (magenta) demonstrates that mKO2 is epitope-tagged with V5 and that the antibody labeling amplifies the signal (Fig. 2). There was no Myc epitope present in the sample because there was no labeling in the anti-Myc antibody staining, 633-nm channel (blue) (Fig. 2e).

Because the anti-HSV labeling is poor, our recommendation for optimal labeling of samples with *UAS-dBrainbow* is to use anti-EGFP (Alexa Fluor 488), anti-HA (Alexa Fluor 633) and anti-V5 (Alexa Fluor 568). The signal will be a mixture of endogenous and antibody-amplified fluorescence in appropriately aligned wavelengths.

Figure 1 | Schematic of the correct *dBrainbow* construct. All fluorescent proteins are cytoplasmic and epitope-tagged as indicated: EGFP-HSV, EBFP2-HA and mKO2-V5. The actual DNA sequences and predicted protein sequences of the junctions between the fluorescent proteins and epitope tags are shown (bottom).

Figure 2 | Confirmation of the epitope tags via endogenous and antibody-based fluorescence analysis. (a–h) Maximum-intensity projections of two 1-μm-thick confocal sections through antennal lobes of adult brains of *hs-Cre; GH146-GAL4; UAS-dBrainbow* flies (scale bars, 20 μm). Merged image (a) shows endogenous fluorescence of EGFP (green) and mKO2 (red), and the V5 primary antibody is visualized with an Alexa Fluor 633 secondary antibody (blue). (The endogenous fluorescence of EBFP2, which is weak, would be detected at 488 nm and is not shown.) Grayscale images show mKO2 (b), EGFP (c) and anti (α)-V5 (d) fluorescence with the laser wavelengths indicated. Merged (e) and individual grayscale channels (f–h) of endogenous mKO2 (red) and EGFP (green). The absence of signal in the 633-nm channel (no blue in the merged image and no signal in h) demonstrates that the anti-Myc antibody does not recognize any of the *dBrainbow* fluorescent cassettes.