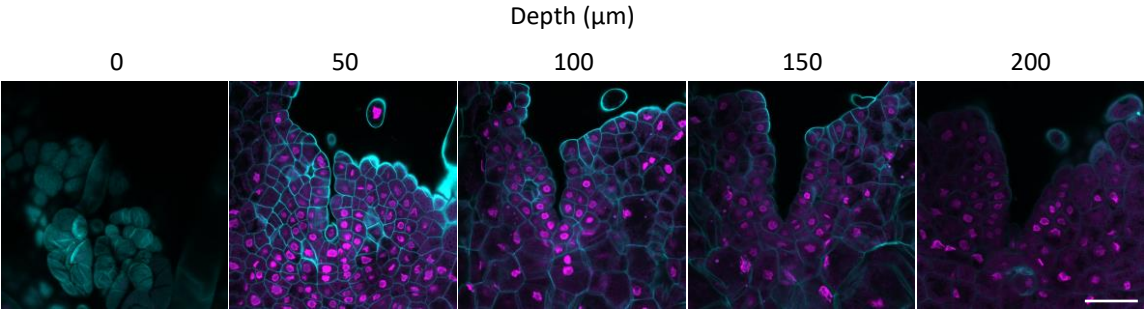
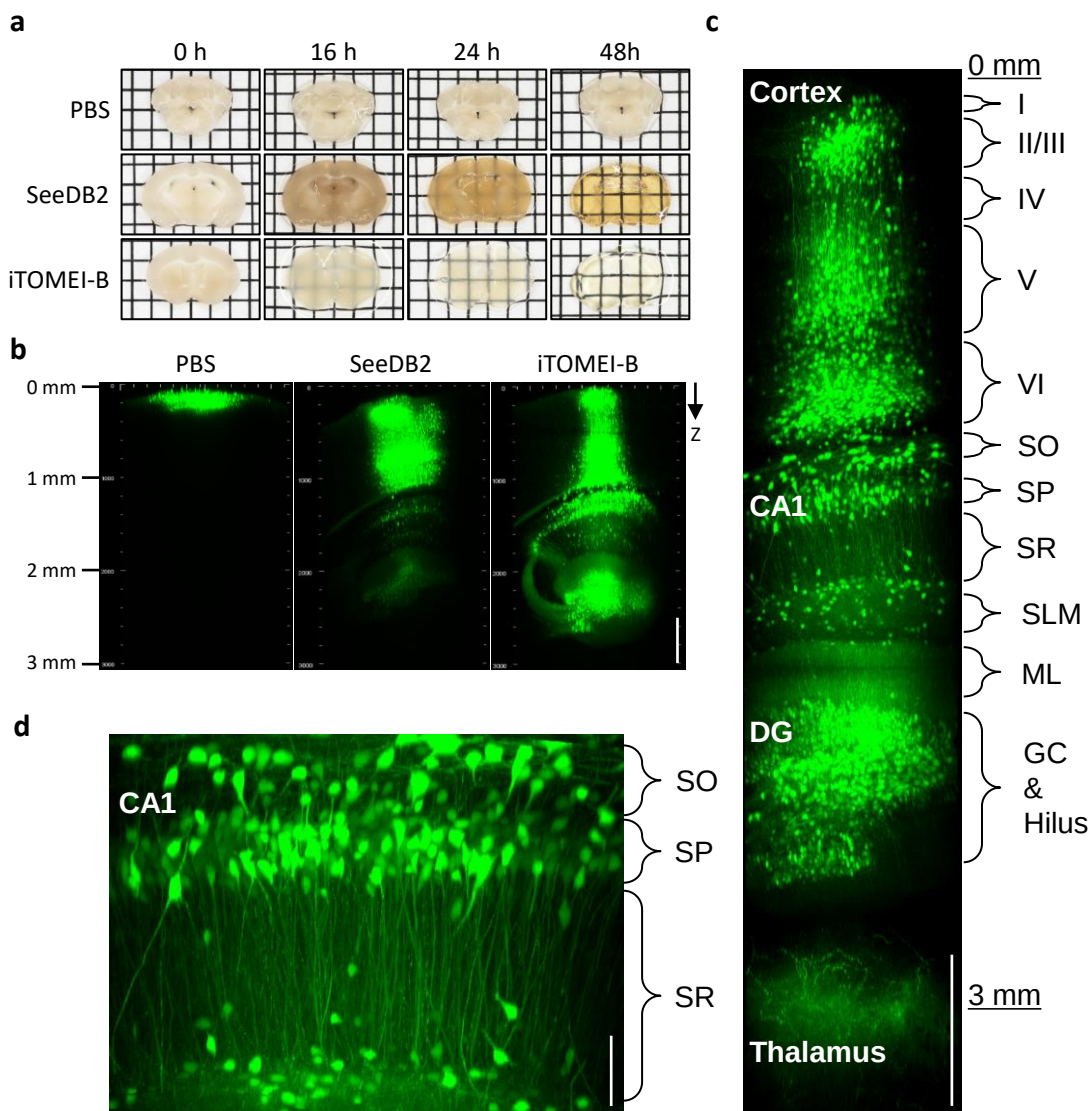


Fig.S1



**Fig. S1 Deep imaging of a transparent apical region of *M. polymorpha* using iTOMEI**  
Thallus of a 3-day-old gemmaling expressing H2B–tdTomato (magenta) stained with Calcofluor White (cyan) and treated with iTOMEI. Confocal optical sections were captured from the ventral surface. Scale bar = 50 μm.



**Fig. S2 Deep imaging of transparent mouse brain using iTOMEI-B**

**a** Mouse brains treated with PBS, SeeDB2, and iTOMEI-B for 0, 16, 24, and 48 h. **b** Three-dimensional reconstruction images of mouse brains expressing GFP treated with various solutions for 48 h. Images were captured from the cortical surface of the hemi brain under the same imaging condition using a two-photon excitation microscope. **c** Three-dimensional reconstruction of neurons expressing GFP in the transparent brain using iTOMEI-B. **d** Enlarged image of CA1 after iTOMEI-B treatment. The depth from the cortex is indicated on the right. Abbreviations: CA, cornu ammonis; DG, dentate gyrus; SO, stratum oriens; SP, stratum pyramidal; SR, stratum radiatum; SLM, stratum lacunosum-moleculare; ML, molecular layer; GC, granule cell layer, I–VI; cortical cell layer I–VI. Scale bars = 500  $\mu$ m (b, c) and 100  $\mu$ m (d).

# Supplementary Table 1

| Number | Chemical name                                |
|--------|----------------------------------------------|
| #1     | Sodium Lauryl Sulfate                        |
| #2     | Lithium Dodecyl Sulfate                      |
| #3     | Sodium Deoxycholate                          |
| #4     | Sodium Cholate                               |
| #5     | Sodium N-Lauroylsarcosinate                  |
| #6     | <i>n</i> -Octyl Sulfobetaine                 |
| #7     | Caprylyl Sulfobetaine                        |
| #8     | Lauryl Sulfobetaine                          |
| #9     | Myristyl Sulfobetaine                        |
| #10    | Palmityl Sulfobetaine                        |
| #11    | Tween 20                                     |
| #12    | Tween 40                                     |
| #13    | Tween 80                                     |
| #14    | Polyethylene Glycol Monododecyl Ether        |
| #15    | Polyethylene Glycol Monocetyl Ether          |
| #16    | Polyethylene Glycol Mono-4-octylphenyl Ether |
| #17    | <i>n</i> -Octyl $\beta$ -D-Glucopyranoside   |
| #18    | TritonX-100                                  |
| #19    | NP-40                                        |

Supplementary Table 1

The list of detergents in Figure 1.