

**Fig. 7- figure supplement 1. Experimental verification of additional ochrophyte dual-targeted proteins.** **Panel A** shows Mitotracker-orange stained *Phaeodactylum tricornutum* lines expressing four additional dual-targeted proteins (glycyl-, leucyl-, and methionyl-tRNA synthetases, and a predicted mitochondrial GroES-type chaperone) from *Phaeodactylum tricornutum*, and a dual-targeted histidyl-tRNA synthetase from *Glenodinium foliaceum*. **Panel B** shows control images that confirm an absence of crosstalk between GFP and mitotracker: wild-type *Phaeodactylum* cells stained with mitotracker, and cells expressing the *Glenodinium* histidyl-tRNA synthetase–GFP fusion construct and visualised with the mitotracker laser and channel in the absence of mitotracker stain.

