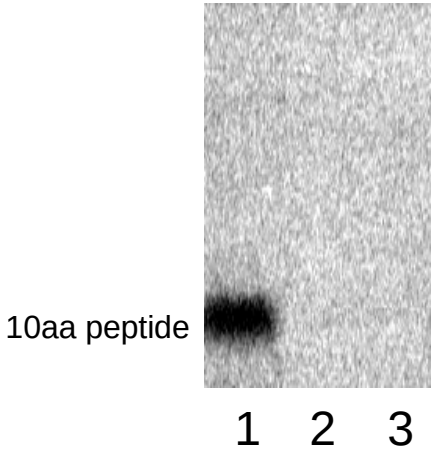
Supplemental Material

Supplemental Fig. 1. Modification of a decapeptide 50-GKGSFKYAWV-59 by ^{14}C-glucosylation. Synthetic peptides acetyl-GKGSFKYAWV-NH_2 (*lane 1*) and acetyl-GKGAFKYAWV-NH_2 (*lane 2*) at a concentration of 10 µM were incubated with 28 nM of Lgt1 in a ^{14}C-glucosylation mixture for 10 min at 37°C. Thereafter products of the reaction were investigated by 15% SDS-PAGE and autoradiography. *Lane 3* represents negative control without added substrates.

Supplemental Fig. 2. Characterization of purified yeast eEF1A. *A,* SDS-PAGE analysis of eEF1A (Coomassie staining, 1 µg per lane). *B,* GTPase activity of purified yeast eEF1A. Purification of elongation factor and determination of its GTPase activity were described in EXPERIMENTAL PROCEDURES. Data are presented as mean of at least 3 independent measurements with standard deviation.

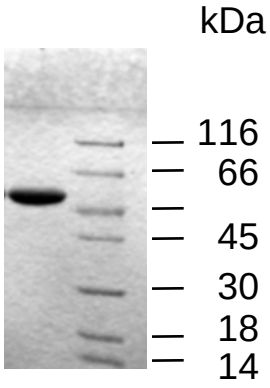
Supplemental Fig. 3. Dynamic studies of glucosylation of different substrates by Lgt1. One µM of each purified substrates was incubated with 70 nM Lgt1 and 10 µM UDP-[^{14}C]glucose at 37°C for 3, 10 and 30 min. Representative glucosylation of eEF1A-derived decapeptide (a), Hbs1 (b), Hbs1-derived decapeptide (c); eEF1A-derived 25-mer peptide (d), G domain of eEF1A (e) and yeast eEF1A (f) at 3, 10 and 30 min are shown as an autoradiogram.

Supplemental Fig. 1



Supplemental Fig. 2

A



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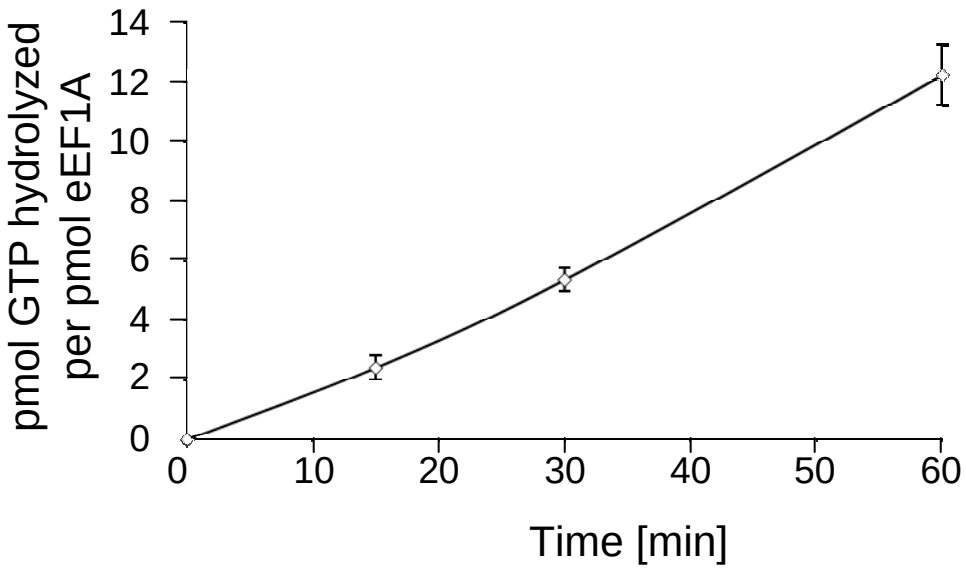

Supplemental Fig. 3