

Figure S1. The column calibration line of SEC. Separation of the monomers (17 kDa) and dimers (34 kDa) of Gal-10 was performed by size-exclusion HPLC with a Sphergel-TSK-2000SW SEC column. The column was calibrated with molecular mass markers as indicated in the figure.

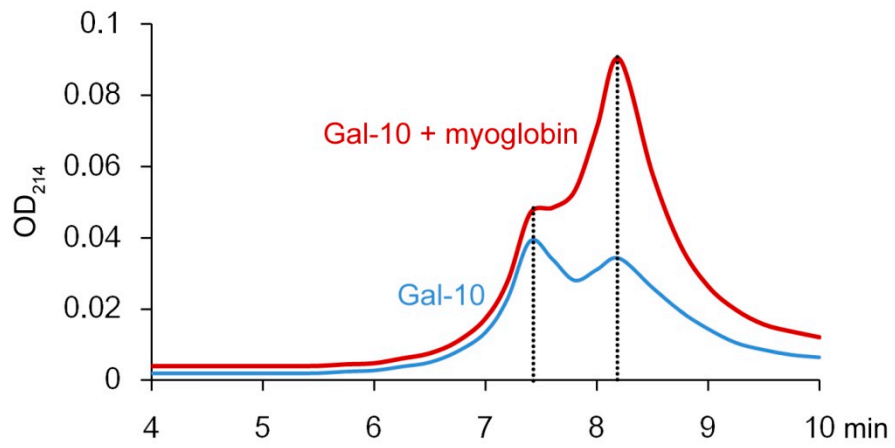


Figure S2. SEC HPLC of Gal-10 and myoglobin. Gal-10 was diluted to 10 μ M and incubated for 2 h. Then the Gal-10 monomers (17 kDa) and dimers (34 kDa) with or without 10 μ M myoglobin (16.7 kDa) were subjected to SEC HPLC with the PBS–azide buffer (pH 7.4).

The image displays a gel electrophoresis result with six lanes. Lanes 1 through 5 each contain a single, prominent DNA band at a molecular weight of approximately 100 base pairs. Lane 6, which serves as a control, contains a single band at a higher molecular weight of approximately 200 base pairs. The bands are stained with a blue dye, likely ethidium bromide, and are clearly visible against the light background of the gel.

Figure S3. Native PAGE of Gal-10 monomers and dimers. Gal-10 was diluted to 10 μ M and incubated with or without 1 mM lactose, galactose, sucrose, or glucose for 2 h. For analyzing the monomer–dimer equilibrium of Gal-10, the gel was stained with Coomassie Blue R-250.

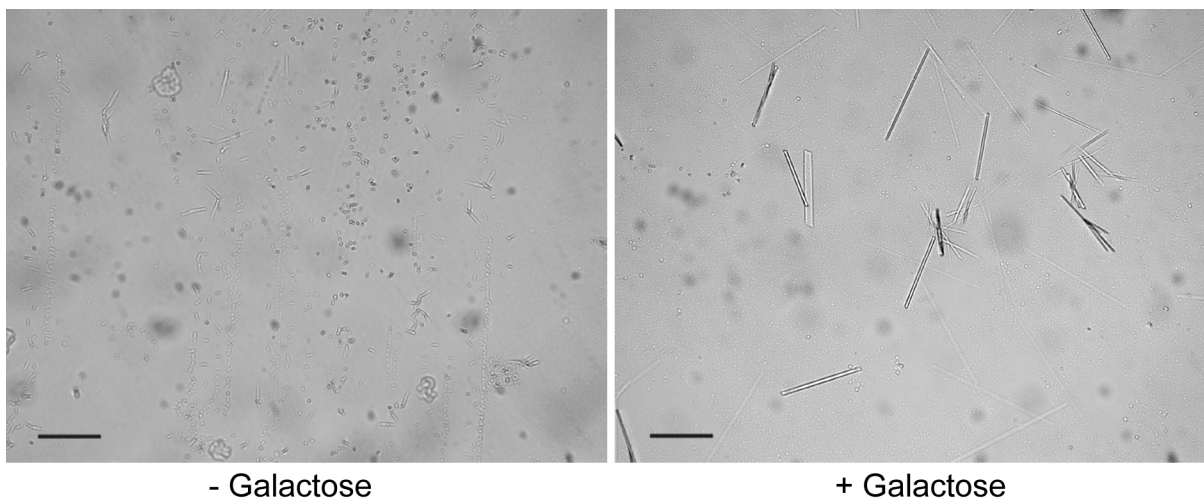


Figure S4. Effect of galactose on crystallization of Gal-10 proteins without His-tag. Recombinant His-tagged Gal-10 was digested with TEV protease to remove the tag. Then Gal-10 without His-tag was diluted to 10 μM in PBS–azide buffer with 0.01% Coomassie brilliant blue R-250 and incubated with or without 1 mM galactose for 24 h. The crystals were observed under a light microscope. Bar = 50 μM .

Table S1. Quantitative data (percentages) of Gal-10 monomers and dimers as shown in Figure 1.

Treatment	dimer	monomer
100 μ M Gal-10 for 2 h	89% \pm 2%	11% \pm 2%
10 μ M Gal-10 for 2 h	62% \pm 4%	38% \pm 4%
1 μ M Gal-10 for 2 h	18% \pm 3%	82% \pm 3%
10 μ M Gal-10 for 0 h	95% \pm 1%	5% \pm 1%
10 μ M Gal-10 for 12 h	28% \pm 3%	72% \pm 3%
10 μ M Gal-10 for 24 h	10% \pm 2%	90% \pm 2%
10 μ M Gal-10 with 1 mM lactose for 2 h	87% \pm 2%	13% \pm 2%
10 μ M Gal-10 with 1 mM galactose for 2 h	88% \pm 2%	12% \pm 2%
10 μ M Gal-10 with 1 mM sucrose for 2 h	63% \pm 4%	37% \pm 4%
10 μ M Gal-10 with 1 mM glucose for 2 h	63% \pm 4%	37% \pm 4%

Mean values with the standard deviations of three independent replicates are shown.