Supporting Information for publication

Macromolecular and solution properties of the recombinant fusion protein HUG

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Figure S1. Characteristics of the HUG lot used in this study.

(a) Absorption spectra (ABS) of HUG (—) and HELP (---) solutions (2 g·L^{-1}) were recorded in quartz cells (d = 1 cm) using a double-beam spectrophotometer (CARY-4E UV-visible spectrophotometer) at room temperature.

(b) SDS-PAGE separation of HELP (lane 1) and HUG (lane 3) (4 µg in each lane). The standard molecular weight is loaded in lane 2.

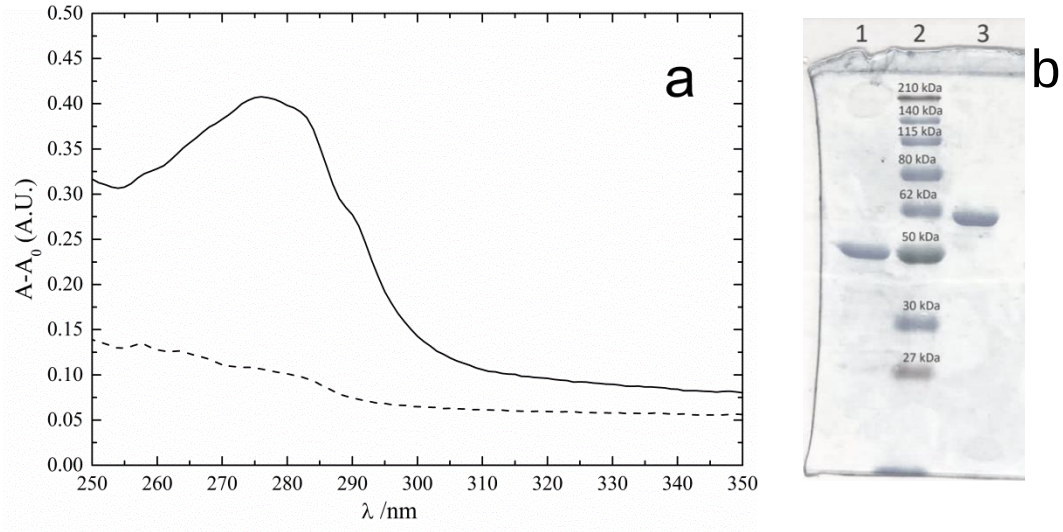
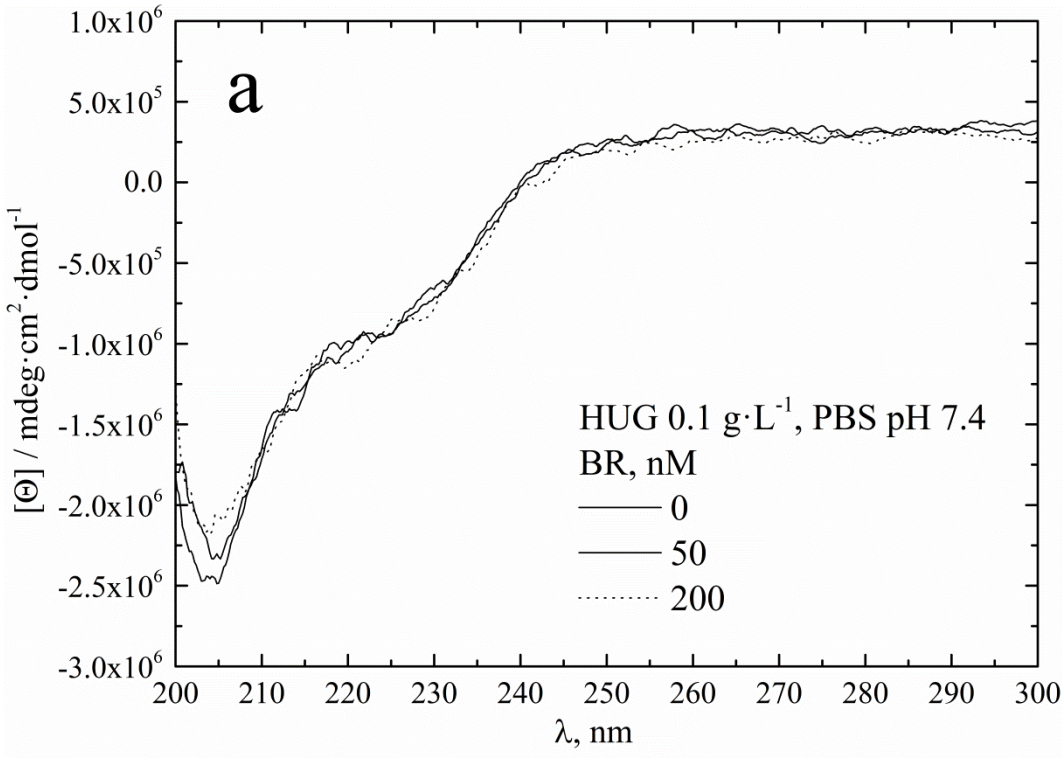


Figure S2. CD spectra of HUG (a) and HELP (b) without and with BR in the nanomolar range.



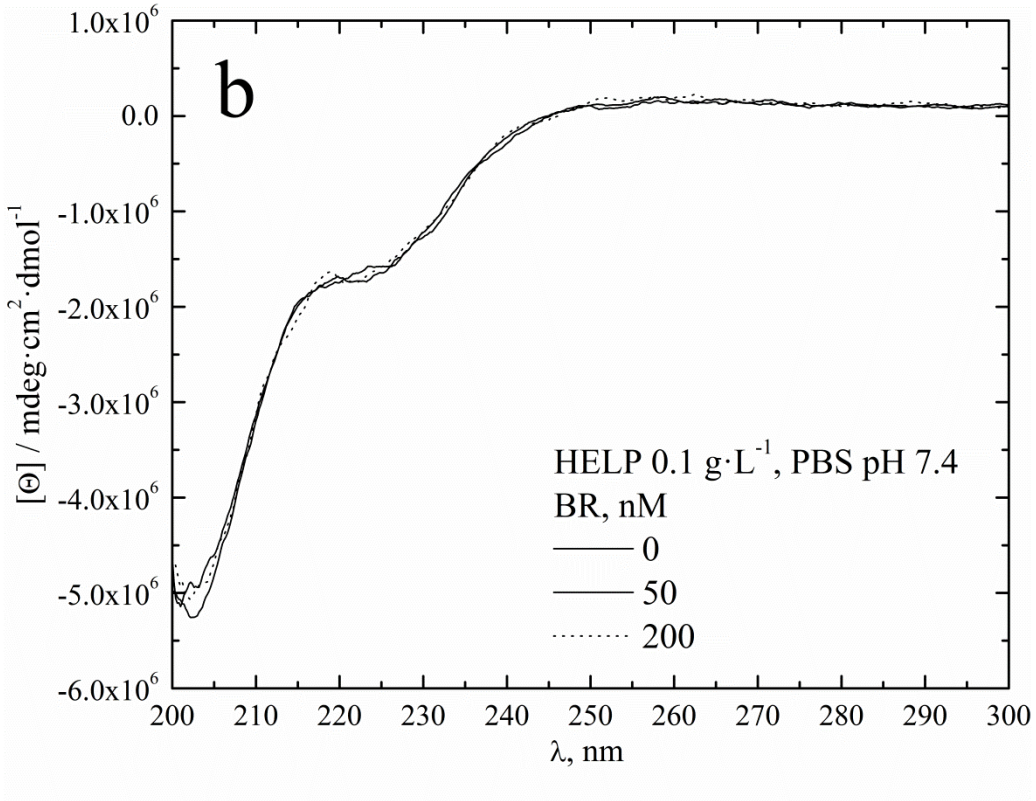
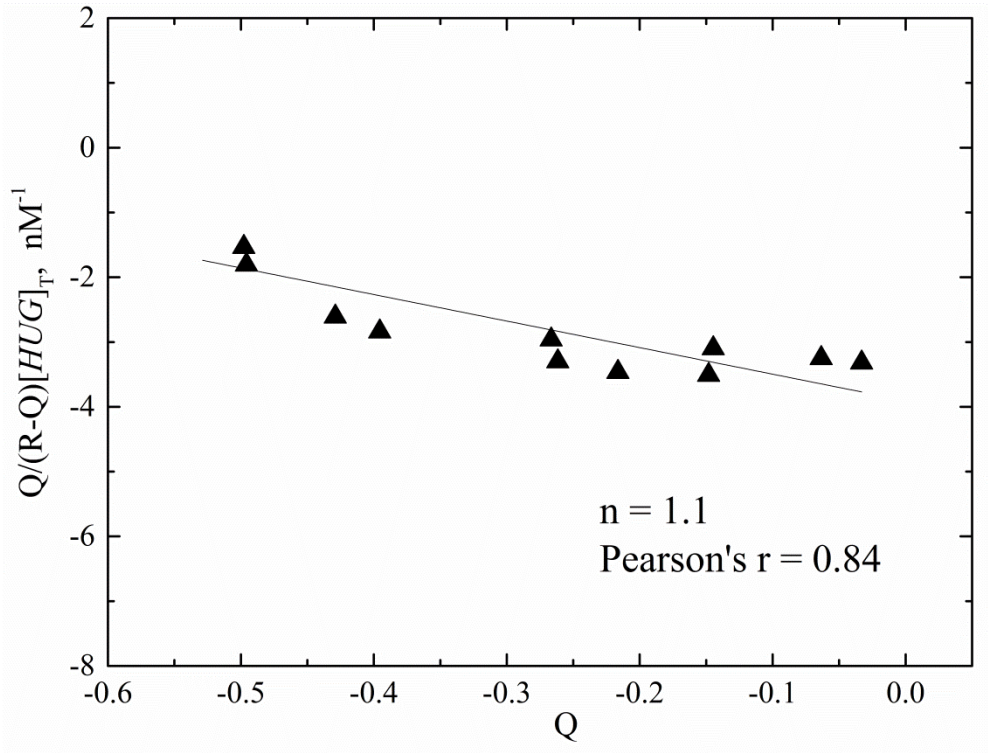


Figure S3. Scatchard plot of HUG-BR complex.



Tha Scatchard plot was obtained by using equation (Levine, 1977):

$$\frac{Q}{(R-Q)[HUG]_T} = nK_a - K_aQ$$

where:

$$Q = \frac{[BR-HUG]}{[HUG]_T}$$

$$R = \frac{[BR]_T}{[HUG]_T}$$

with $[HUG]_T$ and $[BR]_T$ the total concentration of HUG and BR, respectively.

Following Levine (1977), Q is related to the fractional saturation $Y=F/F_0$ as defined above. The linear fitting of data in Figure S3 gives n = 1.1.

Figure S4. One representative Debye plot of HUG and HELP in solution from Static Light Scattering measurements.

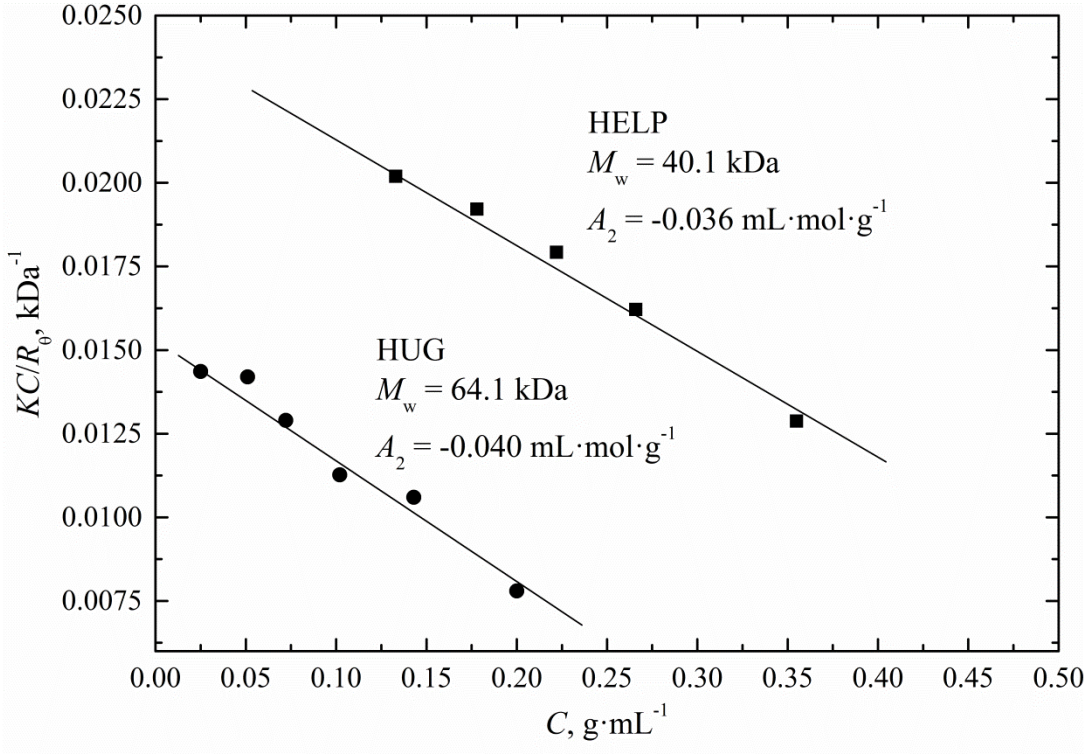


Figure S5. DLS Correlation coefficient (**a**) and size distribution (by intensities) (**b**) of HELP protein at T=30°C, C=0.1 g·L^{-1}.

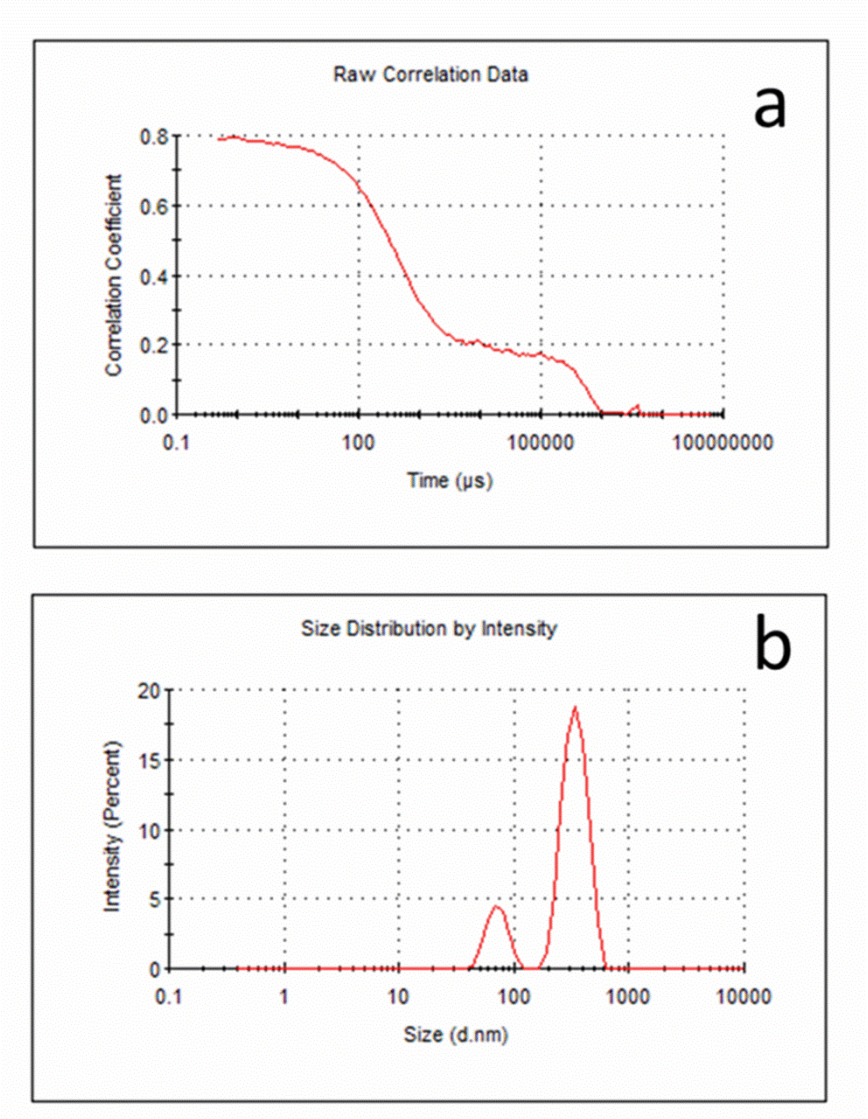


Figure S6. DLS Correlation coefficient (**a**) and size distribution (by intensities) (**b**) of HUG protein at T=30°C, C=0.1 g·L^{-1}.