

Supplementary Materials:

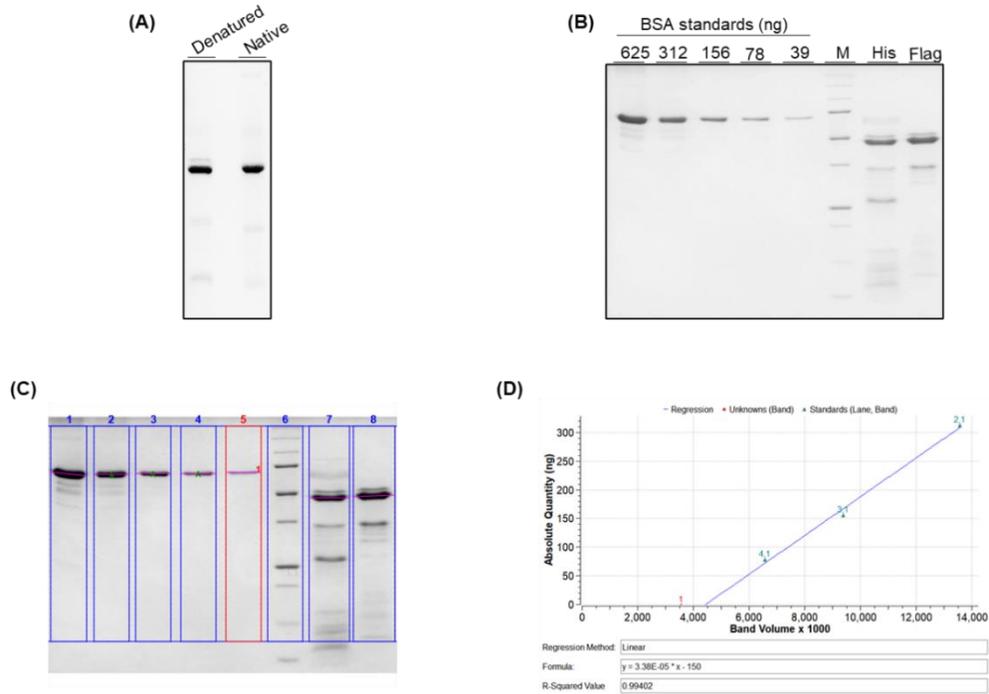
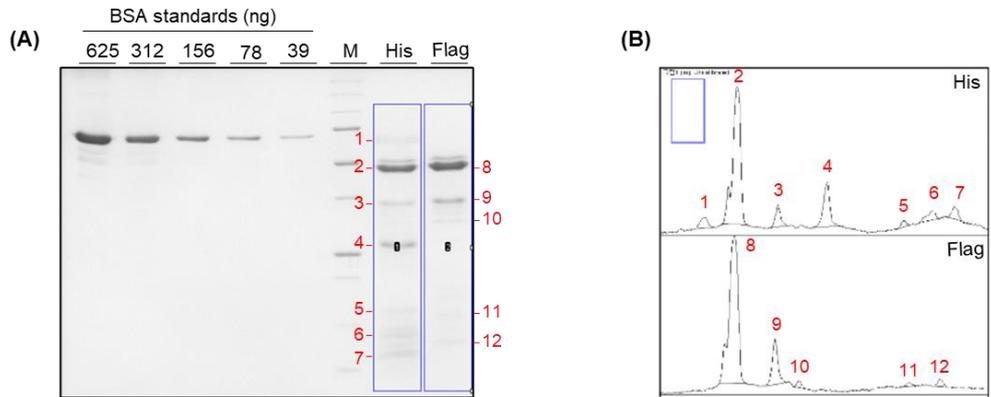


Figure S1: (A) Confirmation of the folding of His-tag purified protein by comparing the mobility shift of denatured (reduced using DTT and heating) and native (non-reduced) proteins on the gel. (B–D) Measurement of the concentration of proteins using Image Lab software. A standard curve was generated using a series diluted bovine serum albumin (BSA) as a standard protein. Next, each volume of the target band (BSA or fusion protein) was estimated using the Image Lab software and the absolute quantity of target protein was calculated using a standard curve.



(C) His-tag purification

Band	1	2	3	4	5	6	7	Total
Area	366.8	5099.9	521.3	1339.7	144.6	375.6	363.3	8214.2
%	4.5	62.1	6.3	16.3	1.8	4.6	4.4	100

Flag-tag purification

Band	8	9	10	11	12	Total
Area	6389.4	1219.8	126.7	86.6	183.0	8005.5
%	79.8	15.2	1.6	1.1	2.3	100

Figure S2: Measurement of the purity of proteins using ImageJ software. Each volume of the bands of protein was estimated using the ImageJ software (A, B) and the purity was calculated by $(\text{area of target band})/(\text{total area of whole bands appeared on the gel}) \times 100$ (C).