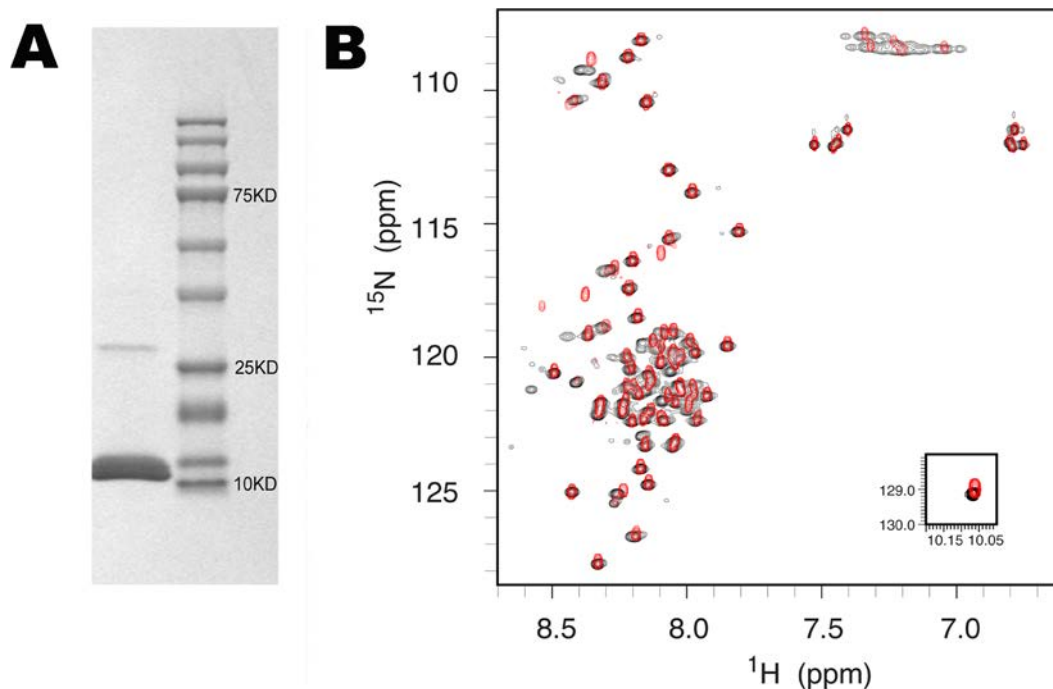


Supplementary Figure 1.



(A) Soluble His₆-tagged SVIPM was purified using Ni-NTA columns. Coomassie-stained SDS-PAGE gel: Lane 1 shows the purified SVIPM proteins. Lane 2 was loaded with the molecular weight standard markers. (B) Overlay of ^1H - ^{15}N NMR HSQC spectra that were derived from NMR experiments for wild-type SVIP (black) and SVIPM (red) in buffer-A at 25°C.

Supplementary Table 1. The dihedral angles of the helical regions in SVIPM were calculated by the TALOS+ software. There were two helices with 21 residues in the helix 1 and 5 residues in the helix 2. Both helices showed the typical dihedral angle of α -helix. The overall helical content was consistent to that simulated by the K2D3 software based on the far-UV CD data.

Helix Segments	Residue Number	Residue Name	Phi	Psi
	1	M	N/A	N/A
	2	G	94.335	5.748

	3	L	-85.376	118.197
	4	S	-79.325	131.748
	5	F	-95.927	137.279
	6	P	N/A	N/A
	7	S	-85.532	134.245
	8	P	-58.756	141.127
	9	G	76.698	5.072
	10	E	-79.542	134.915
	11	S	-89.906	134.574
	12	A	N/A	N/A
	13	P	N/A	N/A
	14	P	N/A	N/A
	15	T	-81.994	127.526
	16	P	-57.467	-28.294
Helix 1	17	D	-66.254	-32.288
	18	L	-64.144	-38.112
	19	E	-65.105	-39.577
	20	E	-62.491	-40.016
	21	K	-61.594	-41.801
	22	R	-64.875	-39.983
	23	A	-63.916	-37.643
	24	K	-64.877	-35.973
	25	L	-64.976	-37.106
	26	A	-65.599	-33.139
	27	E	-66.462	-44.241
	28	A	-63.768	-40.36
	29	A	-65.854	-34.576
	30	E	-67.403	-41.776
	31	R	-62.515	-41.702
	32	R	-62.479	-39.508
	33	Q	-62.516	-40.596
	34	K	-61.142	-35.814
	35	E	-62.398	-42.362
	36	A	-63.383	-37.302
	37	A	-66.531	-33.091
	38	S	-75.331	-23.476
	39	R	-98.936	0.87
	40	G	87.61	12.964
	41	I	-70.623	139.575
	42	L	-86.192	128.701
	43	D	-91.903	140.554
	44	V	-70.555	-29.651
	45	Q	-70.956	-26.344

	46	S	-63	-37.149
Helix 2	47	V	-64.085	-41.137
	48	Q	-64.221	-39.224
	49	E	-63.607	-39.124
	50	K	-73.551	-28.603
	51	R	-86.13	143.099
	52	K	-92.887	129.979
	53	K	-75.134	135.76
	54	K	N/A	N/A
	55	E	N/A	N/A
	56	K	-87.906	133.631
	57	I	-89.401	130.631
	58	E	-82.152	121.141
	59	K	-75.769	120.16
	60	Q	-75.588	121.472
	61	I	-102.093	115.783
	62	A	-80.531	128.348
	63	T	-92.469	133.683
	64	S	-98.216	144.362
	65	G	N/A	N/A
	66	P	N/A	N/A
	67	P	N/A	N/A
	68	P	-71.289	147.793
	69	E	-78.603	-15.057
	70	G	83.972	1.74
	71	G	-88	140.804
	72	L	-87.29	130.685
	73	R	-43.857	136.035
	74	W	-87.005	138.758
	75	T	-94.547	142.564
	76	V	-97.838	131.101
	77	S	-89.79	129.108
	78	L	-87.208	133.163
	79	E	-88.751	-21.411
	80	H	N/A	N/A