

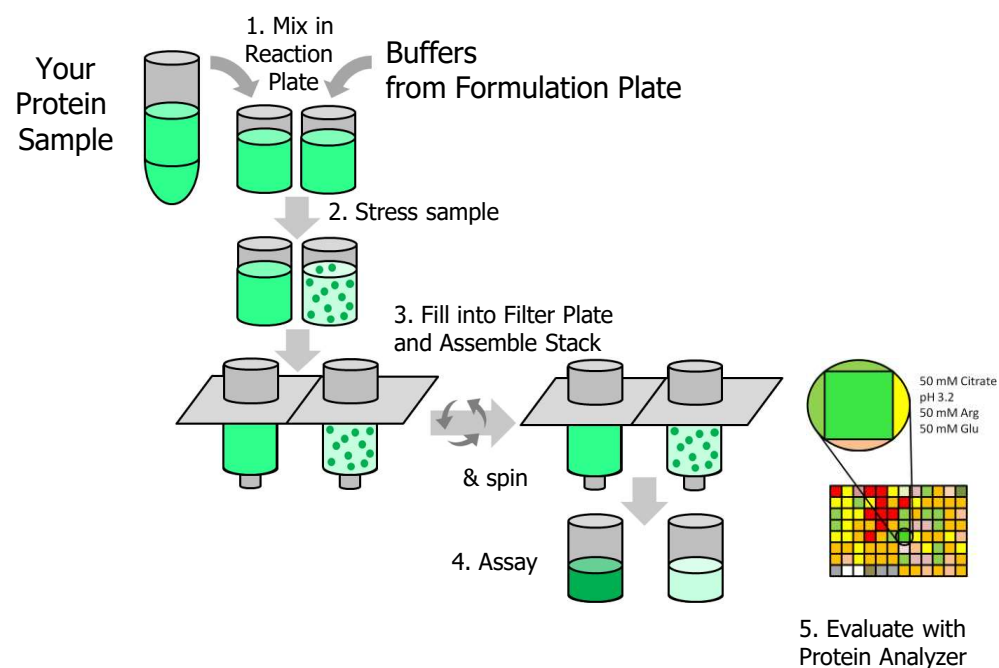
### Protocol A: Protein Solubility Profiling

**Goal:** identify conditions that keep protein solubilized

**Material:** non-aggregated protein sample (100 µL – 2 mL)

**Protocol:**

1. Mix aliquots of protein sample with solutions from Formulation Plate in Reaction Plate, i.e. 96 x ( 20 µL protein + 150 µL VeroSOLV formulation). We recommend to obtain the reference reading of VeroSOLV formulations (without protein) for more accurate results.
2. Optional - apply aggregation stress (i.e. heat to 37°C; incubate over night or 2 weeks; 20 x freeze/thaw cycles; shear through narrow-bore needle, etc.).
3. Transfer protein mixtures into Filter Plate and assemble Stack (Filter Plate on top, Collection Plate on bottom) and spin for 30 min at 3,000 rpm.
4. Assess protein content/function in filtrate. Evaluate data with Protein Analyzer and identify best solution. Consult the Manual for details. ([www.stablebiologics.com](http://www.stablebiologics.com)).



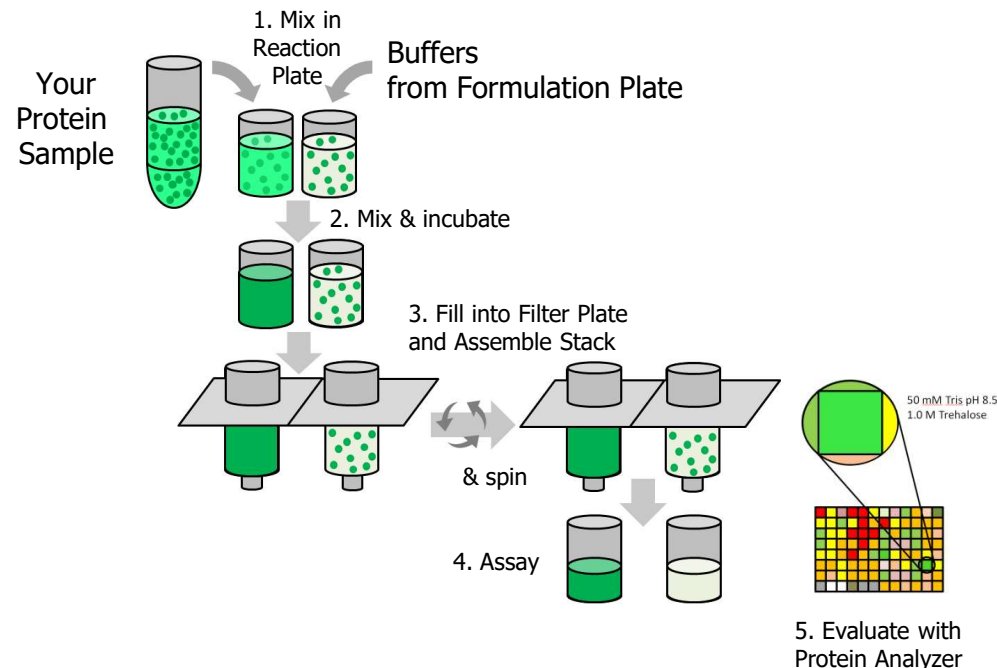
### Protocol B: Solubilize Aggregated Protein

**Goal:** identify conditions that solubilize an aggregated protein sample

**Material:** aggregated protein sample (100 µL – 2 mL)

**Protocol:**

1. Combine aliquots of aggregated protein sample with solutions from Formulation Plate in Reaction Plate, i.e. 96 x ( 20 µL protein + 150 µL VeroSOLV formulation). We recommend to obtain the reference reading of VeroSOLV formulations (without protein) for more accurate results.
2. Mix and incubate for more than 10 min.
3. Transfer protein mixtures into Filter Plate and assemble Stack (Filter Plate on top, Collection Plate on bottom) and spin for 30 min at 3,000 rpm.
4. Assess protein content/function in filtrate. Evaluate data with Protein Analyzer and identify best solution. Consult the Manual for details. ([www.stablebiologics.com](http://www.stablebiologics.com)).



# VeroSOLV™

## Product Information

### Content:

- 1 x 96 well Formulation Plate
- 1 x 96 well Filter Plate
- 1 x 96 well Collection Plate
- 1 x 96 well Reaction Plate

## Purpose

### VeroSOLV Protein Solubility Screening Kit

Systematic solution design and array-based filtration technology for:

- **Protein Solubility Profiling**  
or
- **Solubilizing of Aggregated Protein Sample**

For updated instructions and additional information please refer to [www.stablebiologics.com](http://www.stablebiologics.com)

## Order Information

Kit Size	Catalog #	Price USD	Size (kDa)
VeroSOLV I	SB-101-001	299.00	1 – 10
VeroSOLV II	SB-101-002	299.00	10 – 25
VeroSOLV III	SB-101-003	299.00	25 – 90
VeroSOLV IV	SB-101-004	299.00	90 – 250

3 pack discounted to \$750 USD

Stable Biologics LLC  
1500 1<sup>st</sup> Ave N  
Birmingham, AL 35203  
USA

Send order to: [cweaver@stablebiologics.com](mailto:cweaver@stablebiologics.com)

## Formulation Listing

Well		Buffer <sup>#</sup>			Additive			Well		Buffer <sup>#</sup>			Additive				
#	Row Col	Conc	unit	pH	NAME	Conc	unit	#	Row Col	Conc	unit	pH	NAME	Conc	unit		
1	A 1	Glycine	100	mM	3.0			49	E 1	Glycine	50	mM	3.0	Na <sub>2</sub> SO <sub>4</sub>	500	mM	
2	A 2	Citric Acid	100	mM	3.2			50	E 2	Sodium Acetate	50	mM	4.5	Na <sub>2</sub> SO <sub>4</sub>	500	mM	
3	A 3	PIPPS	100	mM	3.7			51	E 3	Bis-Tris	50	mM	6.0	Na <sub>2</sub> SO <sub>4</sub>	500	mM	
4	A 4	Citric Acid	100	mM	4.0			52	E 4	MOPS	50	mM	7.0	Na <sub>2</sub> SO <sub>4</sub>	500	mM	
5	A 5	Sodium Acetate	100	mM	4.5			53	E 5	Imidazole	50	mM	8.0	Na <sub>2</sub> SO <sub>4</sub>	500	mM	
6	A 6	Na/K Phosphate	100	mM	5.0			54	E 6	CHES	50	mM	9.5	Na <sub>2</sub> SO <sub>4</sub>	500	mM	
7	A 7	Sodium Citrate	100	mM	5.5			55	E 7	Citric Acid	50	mM	3.2	Arg/Glu*	50	mM	
8	A 8	Na/K Phosphate	100	mM	6.0			56	E 8	Na/K Phosphate	50	mM	5.0	Arg/Glu*	50	mM	
9	A 9	Bis-Tris	100	mM	6.0			57	E 9	ADA	50	mM	6.5	Arg/Glu*	50	mM	
10	A 10	MES	100	mM	6.2			58	E 10	HEPES	50	mM	7.5	Arg/Glu*	50	mM	
11	A 11	ADA	100	mM	6.5			59	E 11	Tris	50	mM	8.5	Arg/Glu*	50	mM	
12	A 12	Bis-Tris Propane	100	mM	6.5			60	E 12	CAPS	50	mM	10.0	Arg/Glu*	50	mM	
13	B 1	Ammonium Acetate	100	mM	7.0			61	F 1	Glycine	50	mM	3.0	Tween 20	1 % (w/v)		
14	B 2	MOPS	100	mM	7.0			62	F 2	Sodium Acetate	50	mM	4.5	Tween 20	1 % (w/v)		
15	B 3	Na/K Phosphate	100	mM	7.0			63	F 3	Bis-Tris	50	mM	6.0	Tween 20	1 % (w/v)		
16	B 4	HEPES	100	mM	7.5			64	F 4	MOPS	50	mM	7.0	Tween 20	1 % (w/v)		
17	B 5	Tris	100	mM	7.5			65	F 5	Imidazole	50	mM	8.0	Tween 20	1 % (w/v)		
18	B 6	EPPS	100	mM	8.0			66	F 6	CHES	50	mM	9.5	Tween 20	1 % (w/v)		
19	B 7	Imidazole	100	mM	8.0			67	F 7	Citric Acid	50	mM	3.2	Poloxamer 188	0.2 % (w/v)		
20	B 8	Bicine	100	mM	8.5			68	F 8	Na/K Phosphate	50	mM	5.0	Poloxamer 188	0.2 % (w/v)		
21	B 9	Tris	100	mM	8.5			69	F 9	ADA	50	mM	6.5	Poloxamer 188	0.2 % (w/v)		
22	B 10	CHES	100	mM	9.0			70	F 10	HEPES	50	mM	7.5	Poloxamer 188	0.2 % (w/v)		
23	B 11	CHES	100	mM	9.5			71	F 11	Tris	50	mM	8.5	Poloxamer 188	0.2 % (w/v)		
24	B 12	CAPS	100	mM	10.0			72	F 12	CAPS	50	mM	10.0	Poloxamer 188	0.2 % (w/v)		
25	C 1	Glycine	50	mM	3.0	NaCl	150	mM	73	G 1	Glycine	50	mM	3.0	Glycerol	20 % (w/v)	
26	C 2	Sodium Acetate	50	mM	4.5	NaCl	150	mM	74	G 2	Sodium Acetate	50	mM	4.5	Glycerol	20 % (w/v)	
27	C 3	Bis-Tris	50	mM	6.0	NaCl	150	mM	75	G 3	Bis-Tris	50	mM	6.0	Glycerol	20 % (w/v)	
28	C 4	MOPS	50	mM	7.0	NaCl	150	mM	76	G 4	MOPS	50	mM	7.0	Glycerol	20 % (w/v)	
29	C 5	Imidazole	50	mM	8.0	NaCl	150	mM	77	G 5	Imidazole	50	mM	8.0	Glycerol	20 % (w/v)	
30	C 6	CHES	50	mM	9.5	NaCl	150	mM	78	G 6	CHES	50	mM	9.5	Glycerol	20 % (w/v)	
31	C 7	Citric Acid	50	mM	3.2	NaCl	500	mM	79	G 7	Citric Acid	50	mM	3.2	Betaine	1	M
32	C 8	Na/K Phosphate	50	mM	5.0	NaCl	500	mM	80	G 8	Na/K Phosphate	50	mM	5.0	Betaine	1	M
33	C 9	ADA	50	mM	6.5	NaCl	500	mM	81	G 9	ADA	50	mM	6.5	Betaine	1	M
34	C 10	HEPES	50	mM	7.5	NaCl	500	mM	82	G 10	HEPES	50	mM	7.5	Betaine	1	M
35	C 11	Tris	50	mM	8.5	NaCl	500	mM	83	G 11	Tris	50	mM	8.5	Betaine	1	M
36	C 12	CAPS	50	mM	10.0	NaCl	500	mM	84	G 12	CAPS	50	mM	10.0	Betaine	1	M
37	D 1	Glycine	50	mM	3.0	Trehalose	500	mM	85	H 1	H2O	100	%				
38	D 2	Sodium Acetate	50	mM	4.5	Trehalose	500	mM	86	H 2	H2O	100	%				
39	D 3	Bis-Tris	50	mM	6.0	Trehalose	500	mM	87	H 3							
40	D 4	MOPS	50	mM	7.0	Trehalose	500	mM	88	H 4				AmSulfate	3	M	
41	D 5	Imidazole	50	mM	8.0	Trehalose	500	mM	89	H 5	PBS						
42	D 6	CHES	50	mM	9.5	Trehalose	500	mM	90	H 6	PEG 1450	10	%	NaCl	50	mM	
43	D 7	Citric Acid	50	mM	3.2	TMAO	500	mM	91	H 7				DTT	1	mM	
44	D 8	Na/K Phosphate	50	mM	5.0	TMAO	500	mM	92	H 8				DTT	5	mM	
45	D 9	ADA	50	mM	6.5	TMAO	500	mM	93	H 9				DTT	15	mM	
46	D 10	HEPES	50	mM	7.5	TMAO	500	mM	94	H 10				BME	2.5	mM	
47	D 11	Tris	50	mM	8.5	TMAO	500	mM	95	H 11				BME	10	mM	
48	D 12	CAPS	50	mM	10.0	TMAO	500	mM	96	H 12				BME	20	mM	

TMAO, Trimethylamine N-Oxide; PIPPS, Piperazine-N, n'-Bis (3-Propanesulfonic Acid); MES, 2-(N-morpholino) ethanesulfonic acid; MOPS, 3-(N-morpholino) propanesulfonic acid; HEPES, 4-(2-hydroxyethyl)-1-piperazineethanesulfonic acid; Arg/Glu\*: 50mM of each Arginine and Glutamate; DDT, DL-Dithiothreitol; BME, 2-Mercaptoethanol; Betaine, Trimethyl-Glycine; CAPS, N-cyclohexyl-3-amino-propanesulfonic acid; ADA, N-(2-Acetamido)iminodiacetic Acid; Tris, tris(hydroxymethyl)aminomethane; CHES, 2-(N-Cyclohexylamino)ethane Sulfonic Acid; EPPS, N-(2-hydroxyethyl)piperazine-N'-(3-propanesulfonic acid), PBS, phosphate buffer saline pH 7.4.  
# pH values for buffers used only; \* each amino acid is 50 mM