VeroSOLV-RX™

Protein Solubility Screening Kit

User Guide

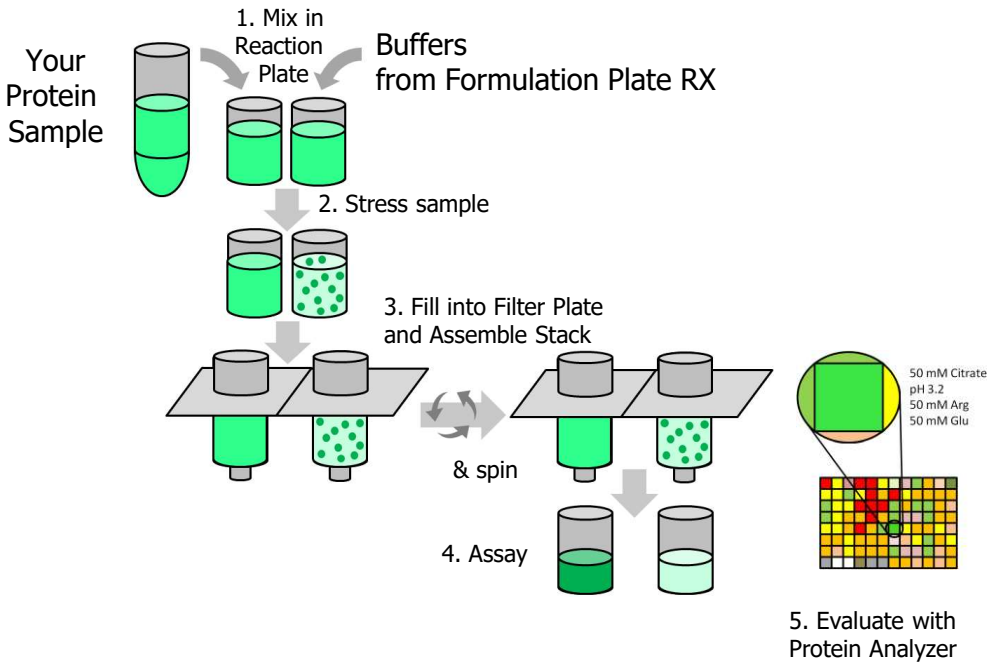
Protocol A: Protein Solubility Profiling

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-RX formulation). We recommend to obtain the reference reading of VeroSOLV-RX 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).



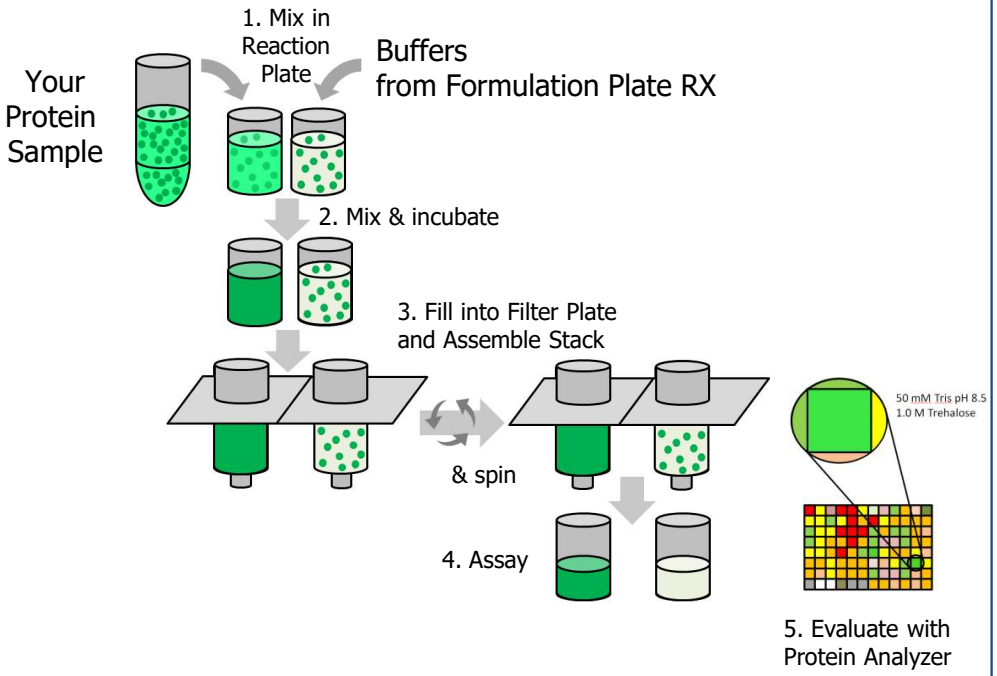
Protocol B: Solubilize Aggregated Protein

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-RX formulation). We recommend to obtain the reference reading of VeroSOLV-RX 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).



VeroSOLV-RX™

Product Information

Content:

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

Purpose

VeroSOLV-RX 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

Order Information

Kit Size	Catalog #	Price USD	Size (kDa)
VeroSOLV-RX I	SB-102-001	299.00	1 – 10
VeroSOLV-RX II	SB-102-002	299.00	10 – 25
VeroSOLV-RX III	SB-102-003	299.00	25 – 90
VeroSOLV-RX IV	SB-102-004	299.00	90 – 250

3 pack discounted to $750 USD

Stable Biologics LLC
1500 1st Ave N
Birmingham, AL 35203
USA
Send order to: cweaver@stablebiologics.com

Formulation Listing

Well #	Row	Col	Buffer#	Conc	unit	pH	Additive NAME	Conc	unit
1	A	1	Acetate	50	mM	5.0	NaCl	60	mM
2	A	2					Arg/Glu*	100	mM
3	A	3					Arginine-HCl	30	mM
4	A	4					Glycine	100	mM
5	A	5					Poloxamer 188	0.2	%w/v
6	A	6					EDTA	4	mM
7	A	7					Na bisulfate	6	mM
8	A	8					Sucrose	100	mM
9	A	9					Sorbitol	100	mM
10	A	10					PEG 400	2	%w/v
11	A	11					Glycerol	6	%w/v
12	A	12	Ammonium sulfate	3	M				
13	B	1	Histidine	50	mM	6.0	NaCl	60	mM
14	B	2					Arg/Glu*	100	mM
15	B	3					Arginine-HCl	30	mM
16	B	4					Glycine	100	mM
17	B	5					Poloxamer 188	0.2	%w/v
18	B	6					EDTA	4	mM
19	B	7					Na bisulfate	6	mM
20	B	8					Sucrose	100	mM
21	B	9					Sorbitol	100	mM
22	B	10					PEG 400	2	%w/v
23	B	11					Glycerol	6	%w/v
24	B	12	DMSO	5	%v/v				
25	C	1	Sodium Succinate	50	mM	6.0	NaCl	60	mM
26	C	2					Arg/Glu*	100	mM
27	C	3					Arginine-HCl	30	mM
28	C	4					Glycine	100	mM
29	C	5					Poloxamer 188	0.2	%w/v
30	C	6					EDTA	4	mM
31	C	7					Na bisulfate	6	mM
32	C	8					Sucrose	100	mM
33	C	9					Sorbitol	100	mM
34	C	10					PEG 400	2	%w/v
35	C	11					Glycerol	6	%w/v
36	C	12	Original sample buffer						
37	D	1	Sodium citrate	50	mM	6.5	NaCl	60	mM
38	D	2					Arg/Glu*	100	mM
39	D	3					Arginine-HCl	30	mM
40	D	4					Glycine	100	mM
41	D	5					Poloxamer 188	0.2	%w/v
42	D	6					EDTA	4	mM
43	D	7					Na bisulfate	6	mM
44	D	8					Sucrose	100	mM
45	D	9					Sorbitol	100	mM
46	D	10					PEG 400	2	%w/v
47	D	11					Glycerol	6	%w/v
48	D	12	Glycine	50	mM	3.0	NaCl	500	mM
49	E	1	Sodium phosphate	50	mM	6.5	NaCl	60	mM
50	E	2					Arg/Glu*	100	mM
51	E	3					Arginine-HCl	30	mM
52	E	4					Glycine	100	mM
53	E	5					Poloxamer 188	0.2	%w/v
54	E	6					EDTA	4	mM
55	E	7					Na bisulfate	6	mM
56	E	8					Sucrose	100	mM
57	E	9					Sorbitol	100	mM
58	E	10					PEG 400	2	%w/v
59	E	11					Glycerol	6	%w/v
60	E	12	Sodium lactate	50	mM	6.5			
61	F	1	Potassium phosphate	50	mM	7.0	NaCl	60	mM
62	F	2					Arg/Glu*	100	mM
63	F	3					Arginine-HCl	30	mM
64	F	4					Glycine	100	mM
65	F	5					Poloxamer 188	0.2	%w/v
66	F	6					EDTA	4	mM
67	F	7					Na bisulfate	6	mM
68	F	8					Sucrose	100	mM
69	F	9					Sorbitol	100	mM
70	F	10					PEG 400	2	%w/v
71	F	11					Glycerol	6	%w/v
72	F	12	Na/K phosphate	50	mM	7.5	Tween 20	0.4	%w/v
73	G	1	Na/K phosphate	50	mM	7.5	NaCl	60	mM
74	G	2					Arg/Glu*	100	mM
75	G	3					Arginine-HCl	30	mM
76	G	4					Glycine	100	mM
77	G	5					Poloxamer 188	0.2	%w/v
78	G	6					EDTA	4	mM
79	G	7					Na bisulfate	6	mM
80	G	8					Sucrose	100	mM
81	G	9					Sorbitol	100	mM
82	G	10					PEG 400	2	%w/v
83	G	11					Glycerol	6	%w/v
84	G	12					Benzyl alcohol	0.2	%w/v
85	H	1	Tris	50	mM	7.5	NaCl	60	mM
86	H	2					Arg/Glu*	100	mM
87	H	3					Arginine-HCl	30	mM
88	H	4					Glycine	100	mM
89	H	5					Poloxamer 188	0.2	%w/v
90	H	6					EDTA	4	mM
91	H	7					Na bisulfate	6	mM
92	H	8					Sucrose	100	mM
93	H	9					Sorbitol	100	mM
94	H	10					PEG 400	2	%w/v
95	H	11					Glycerol	6	%w/v
96	H	12	Tris	50	mM	8.5			

Note:

DMSO: dimethyl sulfoxide. EDTA: ethylenediaminetetraacetic acid. NaCl: sodium chloride. PEG: polyethylene glycol. # pH values for buffers used only; * Arginine-HCl/Glutamic acid, each amino acid is 50 mM
Well A12, B12 and C12 are for control experiments.