

APPENDIX A**Preparation of solutions****1. Methyl cellulose solution**

Place 0.5 g of methyl cellulose in 100 ml volumetric flask and adjust volume with distilled water

2. 0.85% normal saline

Place 0.85 g of sodium chloride in 100 ml volumetric flask and adjust volume with distilled water.

3. Acetaminophen solution

Place 40 g acetaminophen in 100 ml volumetric flask and adjust volume with methyl cellulose solution.

4. *N*-acetylcysteine solution

1. Place 5 g *N*-acetylcysteine in 100 ml volumetric flask and adjust volume with 0.85% normal saline

2. pH of solution was adjusted to 6.95 by 20 N sodium hydroxide

5. 8% EDTA solution

Place 8 g of EDTA in 100 ml volumetric flask and adjust volume with distilled water

6. 4% trichloroacetic acid

Place 4.0201 g trichloroacetic acid in 100 ml volumetric flask and adjust volume with distilled water

7. Phosphate buffer pH 7.4

Place 16 g di-sodium hydrogen phosphate anhydrous (Na_2HPO_4), 4.4 g sodium dihydrogen phosphate dehydrate ($\text{NaH}_2\text{PO}_4 \cdot \text{H}_2\text{O}$), and 0.1 g sodium chloride in 1,000 ml volumetric flask and adjust volume with distilled water

8. DNTB solution for determination of reduced glutathione in liver

Place 4 g of DTNB in 100 ml volumetric flask and adjust volume with distilled water.

9. Precipitation agent

Place 1.0 g of glacial metaphosphoric acid, 30.0 g of sodium chloride and 0.2 g EDTA in 100 ml volumetric flask and adjust volume with distilled water.

10. DTNB solution for determination of glutathione level in blood

Place 1.0 g of sodium citrate in 50 ml volumetric flask and adjust volume with distilled water.

Place 0.49 g of DTNB in 100 ml volumetric flask and dissolve with sodium citrate solution and adjust volume with distilled water.

11. 0.05 M Tris-KCl buffer pH 7.4

Place 0.03723 g EDTA, 85.575 g sucrose and 11.19 potassium chloride in 1000 ml volumetric flask and adjust volume with distilled water.

12. 0.05 Tris buffer pH 7.4

Place 0.03722 g EDTA, 85.575 g sucrose, 200 ml glycerol in 1000 ml volumetric flask and adjust volume with distilled water

13. Phosphate buffer pH 6.8

1. Place 16 g di-sodium hydrogen phosphate anhydrous (Na_2HPO_4), 4.4 g sodium dihydrogen phosphate dehydrate ($\text{NaH}_2\text{PO}_4 \cdot \text{H}_2\text{O}$), and 0.1 g sodium chloride in 1,000 ml volumetric flask and adjust volume with distilled water

2. Adjust pH solution to 6.8 by hydrochloric acid.

14. 100 mM p-nitrophenol

Place 0.7026 g p-nitrophenol in 50 ml volumetric flask and adjust volume with distilled water.

15. 10 mM NADPH

Place 0.2 g NADPH in 25 ml volumetric flask and adjust volume with distilled water

16. 0.5 M trichloroacetic acid

Place 8.2106 g trichloroacetic acid in 100 ml volumetric flask and adjust volume with distilled water.

17. 10 N sodium hydroxide

Place 20 g sodium hydroxide in 50 ml volumetric flask and adjust volume with distilled water

18. 3mM magnesium chloride

Place 0.0285 g magnesium chloride in 100 ml volumetric flask and adjust volume with distilled water

19. 1 mM EDTA

Place 0.3722 g EDTA in 100 ml volumetric flask and adjust volume with distilled water

20. 1 mM NADP

Place 0.019 g NADP in 25 ml volumetric flask and adjust volume with distilled water

21. 5 mM glucose-6-phosphate

Place 0.038 g glucose-6-phosphate in 25 ml volumetric flask and adjust volume with distilled water

22. 50 μ M coumarin

Place 0.0073 g coumarin in 100 ml volumetric flask and adjust volume with distilled water

23. 0.01 N sodium hydroxide

Place 0.042 g sodium hydroxide in 100 ml volumetric flask and adjust volume with distilled water.

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APPENDIX B

Table 21 Random sampling number

03 47 43 73 86	36 96 47 36 61	46 98 63 71 62	33 26 16 80 45	60 11 14 10 95
97 74 24 67 62	42 81 14 57 20	42 81 14 57 20	42 53 32 37 32	24 51 79 89 73
16 76 62 27 66	56 50 26 71 07	32 90 79 78 53	13 55 38 58 59	88 97 54 14 10
12 56 85 99 26	96 96 68 27 31	05 03 72 93 15	57 12 10 14 21	88 26 49 81 76
55 59 56 35 64	38 54 82 46 22	31 62 43 09 90	06 18 44 32 53	23 83 01 30 30
16 22 77 94 39	49 54 43 54 82	17 37 93 23 78	87 35 20 96 43	84 26 34 91 64
84 42 17 53 31	57 24 55 06 88	77 04 74 47 67	21 76 33 50 25	83 92 12 06 76
63 01 63 78 59	16 95 55 67 19	98 10 50 71 75	12 86 73 58 07	44 39 52 38 79
33 21 12 34 29	78 64 56 07 82	52 42 07 44 38	15 51 00 13 42	99 66 02 79 54
57 60 86 32 44	09 47 27 96 54	49 17 46 09 62	90 52 84 77 27	08 02 73 43 58
18 18 07 92 46	44 17 16 58 09	79 83 86 19 62	06 76 50 03 10	55 23 64 05 05
26 62 38 97 75	84 16 07 44 99	83 11 46 32 24	20 14 85 88 45	10 93 72 88 71
23 42 40 64 74	82 97 77 77 81	07 45 32 14 08	32 98 94 07 72	93 85 79 10 75
52 36 28 19 95	50 92 26 11 97	00 56 76 31 38	80 22 02 53 53	86 60 42 04 53
37 85 94 35 12	83 39 50 08 30	42 34 07 96 88	54 42 06 87 98	35 85 29 48 39
70 29 17 12 13	40 33 20 38 26	13 89 51 03 74	17 76 38 13 04	07 74 21 19 30
56 62 18 37 35	96 83 50 87 75	97 12 25 93 47	70 33 24 13 54	97 77 46 44 80
99 49 57 22 77	88 42 95 45 72	16 64 36 16 00	04 43 18 66 79	94 77 24 21 90
16 08 15 04 72	33 27 14 34 09	45 59 34 68 49	12 72 07 34 45	99 27 72 95 14
31 16 93 32 43	50 27 89 87 19	20 15 37 00 49	52 85 66 60 44	38 68 88 11 80
68 34 30 13 70	55 74 30 77 40	44 22 78 84 26	04 33 46 09 52	68 07 97 06 57
74 57 25 65 76	59 29 97 68 60	71 91 38 67 54	13 58 18 24 76	15 54 55 95 52
27 42 37 86 53	48 55 90 65 72	96 57 69 36 10	10 45 65 04 26	11 04 96 67 24

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11 27 94 75 06	06 09 19 74 66	02 94 37 34 02	76 70 90 30 86	38 45 94 30 38
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09 79 13 77 48	73 82 97 22 21	05 03 27 24 83	72 89 44 05 60	35 80 39 94 88
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96 24 40 14 51	23 22 30 88 57	95 67 47 29 83	94 69 40 06 07	18 16 36 78 86
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84 37 90 61 56	70 10 23 89 05	85 11 34 76 60	76 48 45 34 60	01 64 18 39 96
36 67 10 18 23	98 93 35 08 86	99 29 76 29 81	33 34 91 58.93	63 14 52 32 52
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49 83 43 48 35	82 88 33 69 96	72 36 04 19 76	47 45 15 18 60	82 11 08 95 97

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