

## 2-D Protein Extraction Buffer – Trial Kit

### Introduction

The 2-D Protein Extraction Buffers are modifications of well-studied protein solubilization and IPG-strip rehydration buffers designed to produce better spot resolution for 2D gel analysis. Depending on the nature of your samples, one of the following buffers will be suitable for most of your applications.

Extraction Buffer-I and -II are suitable for most applications. However, for stronger solubilization effects, the Extraction Buffer-III, -IV, -V or -VI may be used.

The 2-D Protein Extraction Buffer Trial Kit is designed for those who prefer to experiment for establishing a suitable extraction and solubilization buffer for their protein samples. The trial kit consists of one each of the 2-D Protein Extraction Buffers -I to -VI with their corresponding DILUENT.

### Compatibility

2-D Protein Extraction Buffers are compatible with CyDye™ DIGE Fluors with following exceptions:

- 2-D Protein Extraction Buffer -I is not recommended when CyDye DIGE Fluor minimal dye is used. The labelling efficiency will be slightly reduced.
- 2-D Protein Extraction Buffer-III and -IV are not suitable when CyDye DIGE Fluor labelling kit for scarce samples is used. Labelling efficiency is significantly reduced.

### Items included

Name	Content
2-D Protein Extraction Buffer-I	Urea plus NP-40 For 10 ml (5.0 g)
2-D Protein Extraction Buffer-II	Urea plus CHAPS For 10 ml (5.0 g)
2-D Protein Extraction Buffer-III	Urea, Thiourea, ASB-16, plus CHAPS For 10 ml (5.0 g)
2-D Protein Extraction Buffer-IV	Urea, Thiourea, SB 3-10, plus CHAPS For 10 ml (5.0 g)
2-D Protein Extraction Buffer-V	Urea, Thiourea, plus CHAPS For 10 ml (5.0 g)
2-D Protein Extraction Buffer-VI	Urea, Thiourea, NDSB 201, plus CHAPS For 10 ml (5.0 g)
DILUENT-I	1 x 7 ml
DILUENT-II	1 x 14 ml
DILUENT-III	2 x 12 ml

### Storage condition

The kit is shipped at ambient temperature. Upon arrival, store 2-D Protein Extraction Buffers at 15°C to 30°C and DILUENTS at 4°C to 8°C after opening.

### Instructions for use

The 2-D Extraction Buffers are intended for research use only.

- 1 Reconstitute the supplied 2-D Protein Extraction Buffers -I to -VI by adding 5.75 ml or 5.0 ml of specific DILUENT. Add the specified DILUENT (as per the table below) directly into the corresponding 2-D Protein Extraction Buffer bottle.  
A smaller volume can also be prepared by using 1 g of dry powder mix with 1 ml or 1.15 ml specific DILUENT as per table below.
- 2 Add needed agents such as reducing agents, inhibitors, carrier ampholyte, bromophenol blue dye, etc.
- 3 Mix periodically by vortexing and incubate at room temperature until you have a clear solution.

**Note:** Extraction Buffer-IV might require warming for a short period at 25°C to 30°C (water bath).

With any unused buffer, aliquot and store below -18 °C.

### Diluents

Type of DILUENT to use with 2-D Protein Extraction Buffers -I to -VI:

2-D Protein Extraction Buffer	Type of DILUENT to add	Volume of DILUENT to add to whole buffer container	W/V Ratio of 2-D Protein Extraction Buffer & DILUENT when using only part of buffer container
2-D Protein Extraction Buffer-I	DILUENT-I	5.75 ml	1 g dry powder per 1.15 ml DILUENT-I
2-D Protein Extraction Buffer-II	DILUENT-II	5.75 ml	1 g dry powder per 1.15 ml DILUENT-II
2-D Protein Extraction Buffer-III	DILUENT-III	5.0 ml	1 g dry powder per 1 ml DILUENT-III
2-D Protein Extraction Buffer-IV	DILUENT-III	5.0 ml	1 g dry powder per 1 ml DILUENT-III
2-D Protein Extraction Buffer-V	DILUENT-II	5.75 ml	1 g dry powder per 1.15 ml DILUENT-II
2-D Protein Extraction Buffer-VI	DILUENT-III	5.0 ml	1 g dry powder per 1 ml DILUENT-III



## Order information

Product	Quantity	Code No.
2-D Protein Extraction Buffer – Trial Kit	For 6 × 10 ml	28-9435-22

## Related products

Product	Quantity	Code No.
2-D Protein Extraction Buffer-I	For 50 ml	28-9435-23
2-D Protein Extraction Buffer-II	For 50 ml	28-9435-24
2-D Protein Extraction Buffer-III	For 50 ml	28-9435-25
2-D Protein Extraction Buffer-IV	For 50 ml	28-9435-26
2-D Protein Extraction Buffer-V	For 50 ml	28-9435-27
2-D Protein Extraction Buffer-VI	For 50 ml	28-9435-28
Sample Grinding Kit	50 samples	80-6483-37
Albumin and IgG Removal Kit	10 samples	RPN6300
2D Quant Kit	500 assays	80-6483-56
2D Fractionation Kit	10 samples	80-6501-04
Nuclease Mix	0.5 ml	80-6501-42
Protease Inhibitor Mix	1 ml	80-6501-23
2D Clean-Up Kit	50 samples	80-6484-51
DeStreak Rehydration Solution	5 × 3 ml	17-6003-19
DeStreak Reagent	1 ml	17-6003-18

Product	Quantity	Code No.
CyDye DIGE Fluor minimal dye labeling kit (2 nmol)	1	28-9345-30
CyDye DIGE Fluor, minimal labeling kit (5 nmol)	1	25-8010-65
DIGE Trial Pack, incl. CyDye DIGE Fluor minimal dye labeling kit (2 nmol) + 1 month free DeCyder 2-D trial license	1	28-9373-73
CyDye DIGE Fluor, Cy2 minimal dye	5 nmol	25-8010-82
CyDye DIGE Fluor, Cy3 minimal dye	5 nmol	25-8010-83
CyDye DIGE Fluor, Cy5 minimal dye	5 nmol	25-8010-85
CyDye DIGE Fluor, Cy2 minimal dye	10 nmol	25-8008-60
CyDye DIGE Fluor, Cy3 minimal dye	10 nmol	25-8008-61
CyDye DIGE Fluor, Cy5 minimal dye	10 nmol	25-8008-62
CyDye DIGE Fluor, Cy2 minimal dye	25 nmol	RPK0272
CyDye DIGE Fluor, Cy3 minimal dye	25 nmol	RPK0273
CyDye DIGE Fluor, Cy5 minimal dye	25 nmol	RPK0275
CyDye DIGE Fluor Labeling Kit for Scarce Samples	1	25-8009-83
CyDye DIGE Fluor Labeling Kit for Scarce Samples and Preparative Gel Labeling	1	25-8009-84

For other related products, visit our web site at [www.gelifesciences.com](http://www.gelifesciences.com) or contact our technical dept.

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