



PROTEIN ASSAYS

Quick Start™ Bradford Protein Assay

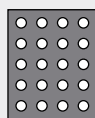
Quick Guide

Standard Assay



125–1,500 µg/ml

Microplate Standard Assay



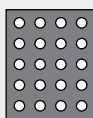
125–1,500 µg/ml

Micro Assay



1.25–20 µg/ml

Microplate Microassay



1.25–20 µg/ml

Pipet standards or samples into test tubes or microplate

100 µl

5 µl

1 ml

150 µl

Add dye reagent

5 ml

250 µl

1 ml

150 µl

Mix

Incubate for 5 to 60 min at room temperature

Measure absorbance at 595 nm; color will be stable for 1 hr

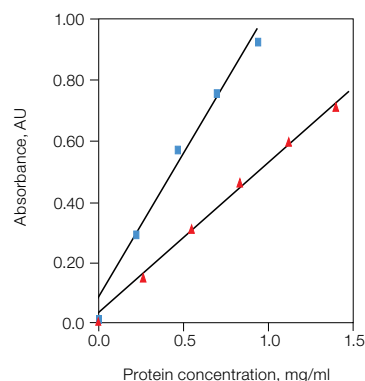
Bradford-based*; includes standards and prediluted reagent

* Adapted from the method of Bradford. Bradford MM (1976). A rapid and sensitive method for the quantitation of microgram quantities of protein utilizing the principle of protein-dye binding. Anal Biochem 72, 248–254.

Setting Up a Standard Curve

Determine protein concentration by plotting the absorbance vs. concentration of known standards. Use the resulting curve to determine the concentration of unknown proteins based on their absorbance.

Note: The best standard to use is a purified sample of your target protein. If this is not available, use Bio-Rad's bovine serum albumin or bovine γ -globulin to make your standard curve.



Standard curve generation using known standards. A typical standard curve for Bradford-based assays, including Quick Start Bradford Protein Assays. Bovine serum albumin (■); bovine γ -globulin (▲).

For Best Results

- Run a standard curve with each protein assay
- Run at least 3 replicates of all standards and samples
- Process the sample and standards the same way to ensure that differences in color intensity are due only to differences in protein concentration
- Make sure the sample and standard fall within the same concentration range

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Reagent Compatibility

The following reagents were tested for their compatibility with the protein assay. Concentrations represent maximum concentrations for standard assay. ✓ = compatible.

Reagent	Concentration	Reagent	Concentration	Reagent	Concentration
Acetone	10%	Guanidine HCl	2 M	SDS	0.03%
Acetonitrile	10%	Hank's salt solution	✓	Sodium acetate, pH 4.8	0.2 M
Ammonium sulfate	1 M	HCl	0.1 M	Sodium azide	0.5%
Ampholytes pH 3–10	0.5%	HEPES	0.1 M	Sodium bicarbonate	0.2 M
ASB-14	0.03%	Imidazole	0.2 M	Sodium carbonate	0.1 M
Ascorbic acid	0.05 M	Magnesium chloride	1 M	Sodium chloride	2.5 M
Bis-Tris, pH 6.5	0.2 M	2-Mercaptoethanol	1 M	Sodium citrate, pH 4.8 or 6.4	0.2 M
Calcium chloride	0.04 M	MES	0.1 M	Sodium hydroxide	0.1 M
CHAPS	10%	Methanol	10%	Sodium phosphate	0.5 M
CHAPSO	10%	Modified Dulbecco's PBS	✓	Sucrose	10%
Deoxycholic acid	0.2%	MOPS	0.1 M	TBP	0.005 M
Dithioerythritol (DTE)	0.01 M	NAD	0.002 M	TBS	0.5x
Dithiothreitol (DTT)	0.01 M	Nonidet P-40	0.25%	TCEP	0.02 M
DMSO	5%	Octyl β-glucoside	0.5%	Thiourea	1 M
Eagle's MEM	✓	Octyl β-thioglucopyranoside	1%	Tricine	0.05 M
Earle's salt solution	✓	PBS	✓	Triethanolamine, pH 7.8	0.05 M
EDTA	0.2 M	Phenol Red	0.5 mg/ml	Tris, pH 8	1 M
EGTA	0.2 M	PIPES	0.2 M	Tris/glycine	1x
Ethanol	10%	PMSF	0.002 M	Tris/glycine/SDS	0.5x
Glucose	20%	Potassium chloride	2 M	Triton X-100	0.05%
Glycerol	5%	Potassium phosphate	0.5 M	Tween 20	0.01%
Glycine	0.1 M	SB 3–10	0.1%	Urea	4 M

Ordering Information

Catalog #	Description
5000201	Quick Start Bradford Protein Assay Kit 1 , includes 1 L 1x dye reagent, BSA standard (5 x 2 mg/ml)
5000202	Quick Start Bradford Protein Assay Kit 2 , includes 1 L 1x dye reagent, BSA standard set (2 sets of 7 standards, 2 ml of 0.125–2.0 mg/ml)
5000203	Quick Start Bradford Protein Assay Kit 3 , includes 1 L 1x dye reagent, bovine γ-globulin standard (5 x 2 mg/ml)
5000204	Quick Start Bradford Protein Assay Kit 4 , includes 1 L 1x dye reagent, bovine γ-globulin standard set (2 sets of 7 standards, 2 ml of 0.125–2.0 mg/ml)

Microplate Reader

1681130	iMark™ Microplate Absorbance Reader
2240096	Costar 96-Well Flat-Bottom EIA Plate , 100 plates

Catalog #	Description
Spectrophotometer	
1702525	SmartSpec™ Plus Spectrophotometer
1702510	trUView™ Cuvettes , pkg of 50
1702511	trUView Cuvettes , pkg of 100
2239950	Standard Disposable Polystyrene Cuvettes , 3.5 ml, pkg of 100
2239955	Semimicrovolume Disposable Polystyrene Cuvettes , 1.5 ml, pkg of 100
1702504	Microvolume Cuvette , 200–700 μl, quartz
1702502	Standard Cuvette , 1–3.5 ml, quartz
1702503	Semimicrovolume Cuvette , 0.5–1.4 ml, quartz
1702504	Microvolume Cuvette , 200–700 μl, quartz
1702505	Submicrovolume Cuvette , 80–150 μl, quartz

Visit bio-rad.com/proteinassaykits for more information.

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