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A Geno Technology, Inc. (USA) brand name

## OneQuant™ Iodoacetamide

### INTRODUCTION

Iodoacetamide is a commonly used alkylation agent for blocking thiols of proteins. Alkylation by iodoacetamide of free cysteines, following their reduction, results in the covalent coupling of a carbamidomethyl group (57.07Da) and prevents formation of disulfide bonds/ bridges. We recommend reduction prior to alkylation as reducing agents added after iodoacetamide treatment will react with excess iodoacetamide. OneQuant™ Iodoacetamide are single aliquots of iodoacetamide that eliminate the need for weighing, preventing loss of reagents and saving time.

### ITEM(S) SUPPLIED Cat. #: 786-078

Description	Size
OneQuant™ Iodoacetamide	24 x 15mg vials

### STORAGE CONDITIONS

It is shipped at ambient temperature. Upon receipt, store the product at 4°C and protected from light & moisture. Stable for one year, if stored and used as recommended.

### IMPORTANT INFORMATION

1. Iodoacetamide is unstable and light-sensitive. To preserve activity of iodoacetamide, prepare the iodoacetamide solutions immediately before use and perform the alkylation step in the dark.
2. Perform alkylation with limiting quantities of iodoacetamide at a slightly alkaline pH (pH8-9) to ensure alkylation is exclusive to cysteine residues. Excess or non-buffered iodoacetamide may result in alkylation of lysines, N-termini, methionines, histidines, aspartates and glutamates.

**Chemical name:** 2-Iodoacetamide

**Formula:** ICH<sub>2</sub>CONH<sub>2</sub>

**Molecular Weight:** 184.96

**CAS No:** 144-48-9

### PROTOCOL

1. **Protein Reduction:** Add 5µl 200mM TCEP•HCl (Tris (2-carboxyethyl) phosphine hydrochloride) for every 100µl 0.2-1mg/ml protein solution. Incubate at 55°C for 1 hour.  
*NOTE: Available from G-Biosciences; Cat. # 786-030 TCEP•HCl*
2. **Protein Alkylation:** Immediately prior to use, pierce the foil of the OneQuant Iodoacetamide tube and add 120µl deionized water and dissolve to generate 0.4M solution of iodoacetamide. Protect the solution from light.
3. Add 5µl 0.4M Iodoacetamide for every 100µl 0.2-1mg/ml protein solution. Incubate at room temperature for 30-60 minutes, protected from light. Discard any unused iodoacetamide solution.
4. The sample is now ready for proteolytic digestion, 2D gel analysis or other downstream application

### RELATED PRODUCTS

1. OneQuant™ DTT (Cat# 786-077).
2. FOCUS™ Protein Reductant (Cat# 786-230).
3. FOCUS™ Protein Reduction-Alkylation (Cat# 786-231).

**NOTE:** For other related products, visit our web site at [www.GBiosciences.com](http://www.GBiosciences.com) or contact us.

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