

# TCA DEPROTEINIZING KIT

**KB03026**

## INTRODUCTION

Proteins may interfere with some assays, affecting accuracy and sensitivity. When ultrafiltration cannot be done, other chemical removal alternatives can be considered.

The BQckit TCA Deproteinizing kit ensures a protein removal efficiency over 99 % with very low sample dilution that includes a neutralizing solution to adjust the pH.

## COMPONENTS

Component	n° samples*	Amount
TCA solution	100	1.7 ml
	200	3.4 ml
	400	6.8 ml
Neutralizing solution	100	1.2 ml
	200	2.4 ml
	400	4.8 ml

\*The number of samples refer to an individual required volume of **150 µl per sample with low concentration of protein** or **100 µl per sample with high concentration of protein**.

Storage: Room temperature  
Stable for: 1 year

## RECOMMENDED USES

For the deproteinization of samples prior to assaying low molecular weight metabolites. The precipitated proteins will remain nonfunctional.

## SHORT PROTOCOL

- 10 min Place the solutions on ice to ensure they are cold  
In a microtube mix your sample with the TCA solution:
  - For samples with **high** concentration use a 6:1 ratio. **For example: 90 µl of sample with 15 µl of TCA solution.**
  - For samples with **low** protein concentration use a ratio of 10:1. **For example: 150 µl of sample with 15 µl of TCA solution.**
- 1 min Vortex
- 15 min Keep microtubes on ice
- 10 min Centrifuge at 10 000 xg at 4°C
- Collect supernatant in other microtube
- Add 10 µl of the neutralizing solution  
Check that the pH is neutral with a pH paper test. If necessary, adjust with the neutralizing solution.
- ATTENTION** Vent sample tube as there may be formation of CO<sub>2</sub>.
- 5 min Place on ice  
Assay directly or freeze at -80°C until the day of the assay
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## DATA ANALYSIS

The sample is diluted by this process. To calculate the dilution factor, apply the following formula:

$$\% \text{ final sample} = \frac{\text{Initial sample volume}}{\text{Initial sample volume} + \text{Volume of TCA Solution} + \text{Volume of neutralization solution}}$$

