BQCkit
A brand of QuiChem

DATA SHEET
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GALLIC ACID STANDARD

ST08003

INTRODUCTION

Gallic acid is a polyphenol produced by plants, which shows antioxidant properties. It is commonly used to measure polyphenol concentration but could also be used to measure antioxidant capacity. It is present in a wide variety of plant-based food samples.

RECOMMENDED USES

To compare the e-BQC results (µC) to classical antioxidant capacity units of Gallic acid Antioxidant Capacity Equivalents (GAE). It could be used for biological and food samples.

COMPATIBLE BUFFERS

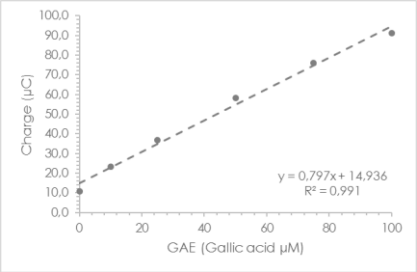
Product	Description	Reference
General Buffer	0.1 M PBS pH 7	ST08007-125/500
Bio-Buffer	150 mM Sterile PBS pH 7.4	ST08006-125/500
Nutrition Buffer	0.1 M PBS pH 5.8	ST08005-125/500

STANDARD CALIBRATION

Add 1 ml of the selected diluent buffer to the vial (10 mM). Transfer the 1 ml from the vial and add 9 ml of diluent (1 mM). Prepare the calibration curves in 1.5 ml tubes as shown below:

	Standard (µl)	Diluent (µl)	TEAC (µM)
1	0	1000	0
2	10	990	10
3	25	975	25
4	50	950	50
5	75	925	75
6	100	900	100

*This is just a recommendation in case the expected antioxidant capacity values of the sample were unknow. You are free to adapt the concentrations to be tested to your necessities.



e-BQC SPECIFICITY

Gallic acid is more predominantly present in Q2 where it has higher sensitivity. It is recommended to use Q2 for calibrations at low concentrations of Gallic acid.

	Q1	Q2	Qt
Sensitivity	0.02 µC/ µM	0.05 µC/ µM	0.8 µC/ µM
LOD	5 µM	10 µM	7 µM
LOQ	17 µM	30 µM	25 µM
LOB	2 µM	12 µM	14 µM
RSD	15 %	10 %	14 %

COMPARISON WITH TAC ASSAY KITS

If a comparison of the e-BQC results with classical antioxidant capacity assays is desired, the following BQC kits that are compatible with a TROLOX standard could be used:

Product	Reference
DMPD	KF01001
FRAP	KF01003
FAST FRAP	KF01006
ORAC	KF01004
CUPRAC	KF01005

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