

Robust

to interfering compounds such as DNA, Detergents, DTT and Urea

Wide Dynamic Range

Over 3-orders of linear dynamic range

Versatile

Suitable for Peptides, precious samples
Glycoproteins, 2D-samples,

Compatible

with Mass Spectrometry, Edman sequencing, PMF, other assays

Perfect for High Throughput

Simple & Quick

· 20 min Protocol
· Signal stable for up to 6 hours

Flexible

Can be used with fluorometers, CCD and laser based imagers. Suitable for microtiter plates, cuvettes or membranes.

Sensitive

Detect as little as 40 ng/mL

Specific

Minimal variation between proteins

Low Background

High signal to noise

Environmentally Friendly
Biodegradable

Make the switch to FluoroProfile™
for your protein quantification

Make the switch to FluoroProfile™ for your protein assays

FluoroProfile™ is based on a fluorophore called epicocconone that provides a fundamentally new approach to protein quantification.

Epicocconone is a water soluble, low molecular weight fluorophore produced by the fungus *Epicoccum nigrum*.

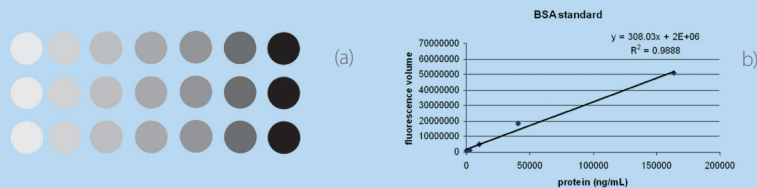
Epicocconone reacts with lysine residues resulting in a shift in fluorescence from green to an intense red.¹

Binding is reversible allowing downstream applications such as Mass Spectrometry, N-terminal Sequencing, HPLC and other functional assays to be performed.

It is a natural product, thus it is biodegradable, enabling convenient, environmentally friendly disposal.

Benefits

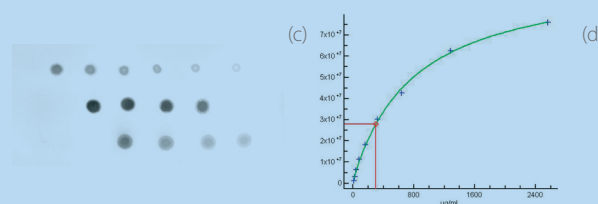
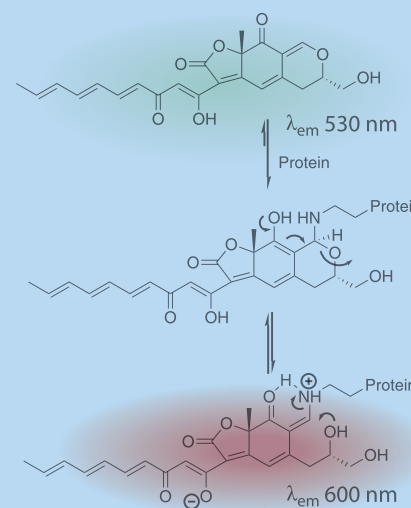
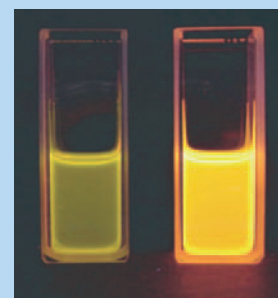
- Sensitive, enabling as little as 40 ng/mL protein to be quantified
- Versatile enabling proteins (including glycoproteins) and peptides to be quantified
- Wide linear dynamic range, over 3 orders of magnitude
- Wide range of convenient assay volumes; 100 µL - 3 mL
- Easy, quick and simple protocol, read data within 20 minutes
- Robust to DNA, Detergents, DTT, Urea, etc
- Signal is stable for up to 6 hours
- Heating and reduction steps are not required
- Wide range of fluorescence measuring instruments can be used
- Proteins are not precipitated or denatured
- Compatible with downstream applications
- Fully biodegradable, enabling safe economical disposal



BSA was prepared in water at a concentration of 163480 ng/mL and diluted four-fold to 40 ng/mL. Aliquots (50 µL) were added, in triplicate to a 96 well microtiter plate with a clear base and 50 µL of the working solution of the FluoroProfile Protein Quantification Kit were added. The plate was incubated at room temperature and then imaged using a Molecular Dynamics Typhoon.

a) An image from the Typhoon scanner of the data-point wells used to produce figure b).

b) A plot of the fluorescence volumes against protein concentration and the corresponding correlation co-efficient.



Quantification of protein extracts in 2-D sample buffer using FluoroProfile Protein Quantification Kit.

c) BSA was prepared and diluted two-fold in O'Farrell's sample buffer (9M urea, 4% chaps 1% dithiothreitol). The concentration of the standards (the two upper rows on the membrane) ranged from 20-2560 µg/mL. The third row shows a two-fold dilution of baker's yeast extract of unknown protein concentration prepared and diluted in the same buffer. To quantify, protein extract was dried onto PVDF. The PVDF was then washed in methanol and stained with FluoroProfile Protein Quantification Kit. The membrane was then destained in methanol, dried and imaged using a laser based scanner.

d) The standards were modeled by non-linear regression using a one-site saturation binding hyperbola. A concentration of 10.2 mg/mL of protein was determined in the yeast extract by interpolation against the standard curve.

Simply the
best protein assay
available

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naturally fluorescent

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1. Coghlan, D.R., et al., 2005. Organic Letters 7, 2401-2404

FluoroProfile is a trademark of Sigma-Aldrich. Sypro Ruby is a trademark of Invitrogen corporation

Contact your local Sigma-Aldrich account manager for further details. www.sigmaaldrich.com