
PROTEIN ABSORBANCE MEASUREMENT ON IMAPLATE™

Introduction

IMAPlate™ 5RC96 is developed based on an [Intelligent Multifunctional Analytic technology](#) from a granted patent. It comprises 96 identical, funnel-like reaction units to use capillary force to hold solution in its reaction units for reaction and / or for analysis in common 96-well plate readers. The standard 96-well plate format designing makes the IMAPlate™ 5RC96 suitable for both automated liquid handling systems and manual liquid handling. Samples are easy to pipette onto the plate with a single- or an eight-channel pipette.

The **Hidex Sense** will help your lab become more effective. The touch screen user interface makes the operation safe and comfortable. Straightforward application focused operation minimizes time spent on instrument training, and is essential for superior results. ELISA, protein quantification and enzyme activity assays are measured with ultrafast full spectrum readout, using a high sensitivity spectrograph for absorbance detection.

Materials *BSA (Cat. No. 500-0007, Bio-Rad)*
 White IMAPlate



Hidex Sense



IMAPlate Start Kit with Adaptor

Test procedure

5 µL of BSA dilutions were pipetted in duplicates onto IMAPlate. The plate was placed on the adaptor and absorbances were measured at 280 nm.

Reader setup

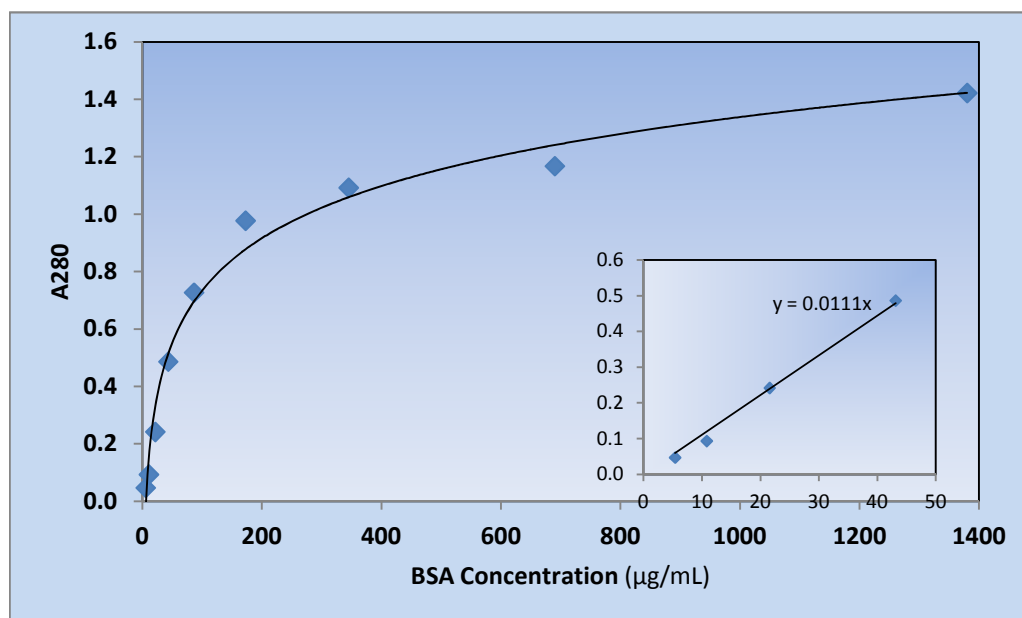
Flashes 10

Wavelengths Center 280 nm (window 5)

Results

	<i>Avg.</i>	<i>3SD</i>	<i>N</i>
Blank	0.122	0.017	20

Conc (µg/mL)	<i>Repl 1</i>	<i>Repl 2</i>	<i>Avg.</i>	<i>Avg.-Blank</i>
5.4	0.132	0.206	0.169	0.047
10.8	0.203	0.228	0.216	0.094
22	0.437	0.291	0.364	0.242
43	0.663	0.554	0.609	0.487
86	0.980	0.718	0.849	0.727
173	1.104	1.095	1.100	0.978
345	1.230	1.198	1.214	1.092
690	1.380	1.199	1.290	1.168
1380	1.543	1.545	1.544	1.422



Absorbance vs. BSA concentration.

Detection limit 1.5 µg/mL

Conclusions

IMAPlate is a practical tool in photometric protein quantitation on Hidex Sense platereader with very low sample volumes.