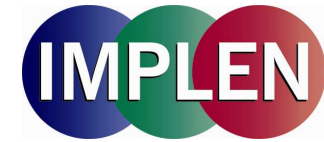


# Nucleic Acids



## Average Detection Range and Required Sample Volumes for Undiluted Nucleic Acid Samples in the NanoPhotometer™ P-Class

	Factor	optional Lid5 / 2mm [ng/µl]	optional (P 300) Lid10 / 1mm [ng/µl]	Lid50 / 0.2mm [ng/µl]	optional Lid100 / 0.1mm [ng/µl]	optional Lid250 / 0.04mm [ng/µl]	Total Detection Range [ng/µl]
dsDNA	50	2 - 375	5 - 750	25 - 3,750	50 - 7,500	125 - 18,750	2 - 18,750
ssDNA	37	2 - 278	4 - 555	19 - 2,775	37 - 5,550	93 - 13,875	2 - 13,875
RNA	40	2 - 300	4 - 600	20 - 3,000	40 - 6,400	100 - 15,000	2 - 15,000
Oligo	33	2 - 248	3 - 495	17 - 2,475	33 - 6,000	83 - 12,375	2 - 12,375
Corresponding Absorbance Value for A260		0.01 - 1.5 Abs	0.01 - 1.5 Abs	0.01 - 1.5 Abs	0.01 - 1.5 Abs	0.01 - 1.5 Abs	
Required Sample Volume		3.5 - 5 µl	1 - 3 µl	0.3 - 2 µl	0.3 - 2 µl	0.3 - 2 µl	

Specifications are subject to change without notice

# Protein



## Average Detection Range and Required Sample Volumes for Undiluted Protein Samples in the NanoPhotometer™ P-Class

	A280 Factor	optional (P 300) Lid 10 / 1 mm [mg/ml]	Lid 50 / 0.2 mm [mg/ml]	optional Lid 100 / 0.1mm [mg/ml]	optional Lid250 / 0.04 mm [mg/ml]	Total Detection Range [mg/ml]
BSA	1.45	0.15 - 22	0.7 - 108	1.45 - 217	3.63 - 543	0.15 - 543
Serum albumin (mouse)	1.57	0.16 - 23	0.8 - 117	1.57 - 235	3.87 - 588	0.16 - 588
Serum albumin (human)	1.76	0.17 - 26	0.9 - 132	1.76 - 264	4.11 - 660	0.17 - 660
IgG	0.71	0.07 - 10	0.4 - 53	0.71 - 106	1.77 - 266	0.07 - 266
Lysozyme	0.38	0.04 - 5	0.2 - 28	0.38 - 57	1.00 - 142	0.04 - 142
Corresponding Absorbance Value for A280		0.01 - 1.5 Abs	0.01 - 1.5 Abs	0.01 - 1.5 Abs	0.01 - 1.5 Abs	
Required Sample Volume		1.5 - 3 µl	0.3 - 2 µl	0.3 - 2 µl	0.3 - 2 µl	

$$\text{concentration} = (\text{Abs}_{280} - \text{Abs}_{320}) * \text{A280 Factor} * \text{Lid Factor}$$

$$\text{A280 factor} = \frac{1}{\text{extinction coefficient [l / (g * cm)]}} = \frac{\text{molecular weight}_{\text{prot.}} [\text{g/mol}]}{\text{molar ext. coeff.}_{\text{prot.}} [\text{l / (mol * cm)]}} = \frac{\text{g * cm}}{\text{l}}$$

Aqueous solutions only; Specifications are subject to change without notice