

Qubit® Conversion Factors

To be used with the Ion Sphere™ Quality Control Kit, catalog number 4468656.

The Ion Sphere™ Quality Control Kit allows for Ion Sphere Particle quality control using the Qubit® 2.0 Fluorometer or Qubit® 3.0 Fluorometer for the below Ion templating kits.

Ion 540™ Chef Kits

Ion 520™ & 530™ Chef Kits

Ion 510™ & 520™ & 530™ Chef Kits

Ion PI™ Chef Kits

Ion PGM™ Chef Kits

Ion 540™ OT2 Kits

Ion 520™ & 530™ OT2 Kits

Ion PI™ Template OT2 Kits

Ion PGM™ Template OT2 Kits

Enter the kit and lot-specific conversion factor for unenriched Ion Sphere™ Particles in the appropriate field (blue cells) of the Qubit® Easy Calculator Microsoft® Excel® Spreadsheet file containing the Calibration Factor specifically calculated for the Qubit® Fluorometer used.

For more information refer to the “Quality control of Ion Sphere™ Particles” section in the Appendix of the templating kit User Guide which can be found on thermofisher.com.

Qubit Calibration Factor Calculation						
Calibration Standard	RFU		Calibration Factor			
Alexa Fluor® 488 Calibration Standard			#DIV/0!			
Alexa Fluor® 647 Calibration Standard			#DIV/0!			
Percent Templated ISPs						
Sample ID	Raw RFU Value		Background RFU (Negative Control Tube)		Conversion Factor*	Percent Templated ISPs
	AF 488	AF 647	AF 488	AF 647		
					#DIV/0!	
					#DIV/0!	
					#DIV/0!	
					#DIV/0!	
* Conversion factor can be found on the Thermo Fisher website (https://www.thermofisher.com/order/catalog/product/4468656) and is Template Kit lot specific.						
Green Cells = Raw RFU values of FAM and Cy5 Calibration Standards supplied in the Ion Sphere Quality Control Kit						
Red Cells = Raw RFU values measured in "Measure the templated unenriched sample"						
Purple Cells = Raw RFU values measured for negative control in "Measure the templated unenriched sample"						
Blue Cells = Template kit lot specific conversion factor						

Insert kit lot-specific value here.

Qubit® Conversion Factors are sorted by kit type and Reagents lot number. If you cannot find the lot number below confirm the lot number is correct and from the Reagents kit, not the Solutions or Supplies kits.

Ion 540™ Chef Kits			
Kit Name	Category Number	Lot Number	Conversion Factor 200bp Libraries
Ion 540™ Kit Chef Reagents	A27758	1881411	0.63
		1842705	0.90
		1871857	0.77
		1824918	0.62
		1822167	1.05
		1774267	0.92
		1767849	0.86
		1742723	0.64
		1703134	1.27

Ion 520™ & 530™ Chef Kits				
Kit Name	Category Number	Lot Number	Conversion Factor 200bp Libraries	Conversion Factor 400bp Libraries
Ion 520™ & 530™ Kit Chef Reagents	A27756	1874678	0.95	1.98
		1871868	0.97	1.35
		1861937A	2.21	2.42
		1845516	1.26	1.37
		1853201	0.86	1.67
		1850818	1.07	2.40
		1824925	1.14	2.24
		1808243	0.88	1.93
		1821940	1.17	2.21
		1822166	1.16	2.34
		1774265	0.89	2.01
		1767848	1.13	2.20
		1728113	1.16	1.82
		1703131	0.87	1.97
		1703131A		

Ion 510™ & 520™ & 530™ Chef Kits				
Kit Name	Category Number	Lot Number	Conversion Factor 200bp Libraries	Conversion Factor 400bp Libraries
Ion 510™ & 520™ & 530™ Kit Chef Reagents	A34018	1889246	0.89	1.13

Ion PI™ Chef Kits			
Kit Name	Category Number	Lot Number	Conversion Factor 200bp Libraries
Ion PI™ Hi-Q™ Chef Reagents	A27284	1853210	0.71
		1824929	0.73
		1774264	0.66
		1810853	1.05
		1767683	0.73
		1742721	0.84
		1742720	0.97
		1703710	1.23
Ion PI™ IC Reagents 200 Kit	4488379	1790022	0.93
		1804894	0.78
		1769166	1.10
		1783277	0.85
		1765621	0.95
		1751066	1.12
		1737031A	0.69

Ion PGM™ Chef Kits				
Kit Name	Category Number	Lot Number	Conversion Factor 200bp Libraries	Conversion Factor 400bp Libraries
Ion PGM™ Hi-Q™ View Chef Reagents	A29901	1871871	0.77	0.95
		1893305A	0.77	0.93
		1842692	0.68	0.82
		1822180	0.75	0.93
		1822163	0.70	0.84
		1817395	0.70	0.95
		1769173	0.68	0.99
		1777756	0.88	0.99
Ion PGM™ Hi-Q™ Chef Reagents Kit	A25955	1822182	0.84	1.56
		1817394	0.89	0.96
		1817396	1.00	1.09
		1808371	1.01	1.41
		1774259	1.01	1.23
		1760424	0.92	1.28
		1742719A	0.96	1.42
		1742719		
		1742718	0.94	1.57
		1659826	0.74	1.22
Ion PGM™ IC Reagents 200 Kit	4484085	1881630	0.68	-
		1849375	0.86	-
		1817389	0.99	-
		1813779	1.16	-
		1729780	0.62	-
		1703698	0.87	-
		1723302	0.75	-

Ion 540™ OT2 Kits			
Kit Name	Category Number	Lot Number	Conversion Factor 200bp Libraries
Ion 540™ Kit OT2 Reagents	A27752	1849433	0.63
		1829523	0.77
		012366	0.79
		011928	0.80
		011467	0.82

Ion 520™ & 530™ OT2 Kits				
Kit Name	Category Number	Lot Number	Conversion Factor 200bp Libraries	Conversion Factor 400bp Libraries
Ion 520™ & 530™ Kit OT2 Reagents	A27749	1849432	1.01	1.83
		013468	0.71	1.61
		012365	0.61	1.71
		012136	0.97	1.97
		011927	0.80	1.25
		011466	0.87	1.42

Ion PI™ Template OT2 Kits			
Kit Name	Category Number	Lot Number	Conversion Factor 200bp Libraries*
Ion PI™ Hi-Q™ OT2 Reagents 200	A26428	014062	0.55
		014002	0.57
		013855	0.78
		013687	0.75
		1843902	0.78
		013686	0.74
		1828687	0.66
		013501	0.68
		013450	0.70
		1828432	0.74
		013390	0.79
		013317	0.73
		013262	0.75
		013115	0.70
		013181	0.79
		012634	0.80
012128	0.92		
011665	0.72		
Ion PI™ Template OT2 Reagents 200 Kit v3	4488319	012211	1.07
		011423	0.85
		010851	0.98
Ion PI™ Template OT2 200 Kit v3	4488318	091C07-14	1.17
		091C06-14	0.96
		091C05-14	1.27

* up to 275bp AmpliSeq designs for the Ion PI™ Template OT2 200 Kit v3

Ion PGM™ Template OT2 Kits				
Kit Name	Category Number	Lot Number	Conversion Factor 200bp Libraries	Conversion Factor 400bp Libraries
Ion PGM™ Hi-Q™ View OT2 Reagents Kit	A29811	1865360	0.78	0.68
		1853234	0.68	0.71
		1848119	0.80	0.66
		1834489	0.82	0.77
		1822179	0.84	0.86
		1777765	0.64	0.84
		1777766	0.79	0.66
		1777764	0.75	0.68
		1770888	1.04	0.81
		1770887	0.80	0.62
Ion PGM™ Hi-Q™ OT2 Reagents Kit	A27743	014101	1.10	1.51
		013510	0.86	1.06
		013323	0.77	0.96
		013289	1.05	1.27
		012942	1.09	1.16
		012617	0.93	1.58
		012135	1.00	2.04
		011678	0.81	1.79
		011320	0.83	1.22
		011010	0.70	1.60
Ion PGM™ Template OT2 Reagents 200 Kit	4481107	014106	0.87	-
		013922	0.85	-
		013685	0.84	-
		013448	0.96	-
		012787	1.01	-
		012612	1.12	-
		012528	1.01	-
		012354	0.59	-
		011914	0.82	-
Ion PGM™ Template OT2 Reagents 400 Kit	4479882	011916	-	1.72
		011163	-	1.40
		010848	-	0.84
Ion PGM™ Template OT2 400 Kit	4479878	073E08-14	-	1.23
		073E07-13	-	1.40
Ion PGM™ Template OT2 200 Kit	4480974	058E13-14	1.04	-
		058E12-14	0.79	-
		058E11-13	1.21	-