

<b>NHS Greater Glasgow &amp; Clyde Immunology and Neuroimmunology</b>		
<b>QF_59</b>	<b>Measurement Uncertainty Summary Table for Complement Function Assays</b>	<b>Version: 3</b>
<b>Author: Lauren Hennessy</b>	<b>Authoriser: Sylvia Arthur / Fran Henriquez</b>	<b>Date of Issue: 27/06/25</b>

### Uncertainty of Measurement: Summary table for complement function assays

Measurement Uncertainty (MU) is calculated using internal quality control (IQC)

The raw data and calculations can be found at the following location:

<\\xggc-fsrv-04\GGC Biochemistry\South Glasgow\Immunology Common\COMMON\1IMM&NI\QUALITY\Quality Control\Uncertainty of Measurement>

Analyte	<b>C1 inhibitor function</b>
	C1EFN IQC
Mean (x)	102.8
Number of measurements (n)	9
Estimated Standard Deviation (s)	9.57
Coefficient of Variance (%CV)	9.31%
Coverage factor (k) to define a confidence level of 95%	2
<b>Relative standard expanded uncertainty (U)</b>	<b>±18.6 %</b>
Uncertainty of measurement <b>example</b> (using IQC)	102.8 ± 19.1% (83.7 – 121.9%)

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Analyte	Classical complement function
	CPAP IQC
Mean (x)	76.7
Number of measurements (n)	7
Estimated Standard Deviation (s)	10.31
Coefficient of Variance (%CV)	13.44%
Coverage factor (k) to define a confidence level of 95%	2
<b>Relative standard expanded uncertainty (U)</b>	<b>± 26.9%</b>
Uncertainty of measurement <b>example</b> (using IQC)	76.7 ± 20.6% (56 – 97%)

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Analyte	Alternative complement function
	CPAP IQC
Mean (x)	103.7
Number of measurements (n)	12
Estimated Standard Deviation (s)	17.90
Coefficient of Variance (%CV)	17.25%
Coverage factor (k) to define a confidence level of 95%	2
<b>Relative standard expanded uncertainty (U)</b>	<b>± 34.5%</b>
Uncertainty of measurement <b>example</b> (using IQC)	103.7 ± 35.8% (67.9- 139.5%)

For the details of the calculation and MU protocol please refer to document QP\_5: Measurement Uncertainty Protocol.