

NHS Greater Glasgow & Clyde Immunology and Neuroimmunology		
QF_37	Uncertainty of Measurement Summary Table for Neuroimmunology	Version: 3
Author: Lauren Hennessy	Authoriser: Moira Thomas	Date of Issue: 01/07/19

Uncertainty of Measurement: Summary table for Neuroimmunology

Uncertainty of measurement (UoM) 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\Quality and Training Group\Uncertainty of Measurement>

Analyte	Anti-acetylcholine receptor antibodies
	Positive IQC
Mean (x)	9
Number of measurements (n)	53
Estimated Standard Deviation (s)	0.98
Coefficient of Variance (%CV)	10.9%
Coverage factor (k) to define a confidence level of 95%	2
Relative standard expanded uncertainty (U)	± 21.8%
Uncertainty of measurement example (using IQC)	9 ± 1.97 nmol/L (7.1 – 11.0 nmol/L)

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Analyte	Anti-MAG antibodies (manual ELISA using the DS2 as a plate reader)
	Low IQC
Mean (x)	7435
Number of measurements (n)	24
Estimated Standard Deviation (s)	930
Coefficient of Variance (%CV)	12.5%
Coverage factor (k) to define a confidence level of 95%	2
Relative standard expanded uncertainty (U)	± 25%
Uncertainty of measurement example (using IQC)	7435 ± 1860 BTU (5575 – 9296 BTU)

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Analyte	Anti-GAD antibodies on the DS2
	IQC GAD
Mean (x)	77.9
Number of measurements (n)	15
Estimated Standard Deviation (s)	5.57
Coefficient of Variance (%CV)	7.15%
Coverage factor (k) to define a confidence level of 95%	2
Relative standard expanded uncertainty (U)	± 14.3%
Uncertainty of measurement example (using IQC)	77.9 ± 11.14 U/mL (66.8 – 89.1 U/mL)

For the details of the calculation and UoM protocol please refer to document QP_5: Uncertainty of Measurement Protocol.