

# Schedule of Accreditation



Organisation Name	Cruinn Diagnostics Limited
Trading As	CruinnCal
INAB Reg No	279C
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Accreditation Standard	EN ISO/IEC 17025 C
Standard Version	2017
Date of award of accreditation	15/02/2011
Scope Classification	Metrology
Services available to the public <sup>1</sup>	Yes

<sup>1</sup> Refer to document on interpreting INAB Scopes of Accreditation

Sites from which accredited services are delivered		
(the detail of the accredited services delivered at each site are on the Scope of Accreditation)		
	Name	Address
1	Head Office	Unit 5A & 6B,, Hume Centre, Park West Industrial Estate, Dublin, D12

# Scope of Accreditation

Head Office

Metrology

Category: A

Metrology field - Calibrated Device Type	Measured quantity	Calibration range	Expanded Measurement Uncertainty	Std. ref/SOP	Products	Remarks
104 Volume - .02 Special laboratory volumetric apparatus	Multi Channel pipettes	1 µl to 5 µl	±0.09 µl	ISO 8655 + inhouse procedures CALB-015, and CALB-020	Multi channel fixed and variable volume pipettes	Update ISO8655 to ISO8655:2022
		1,000 µl to 2,500 µl	±8.7 µl	ISO 8655 + inhouse procedures CALB-015, and CALB-028	Multi channel fixed and variable volume pipettes	Update ISO8655 to ISO8655:2022
		10 µl to 20 µl	±0.16 µl	ISO 8655 + inhouse procedures CALB-015, and CALB-022	Multi channel fixed and variable volume pipettes	Update ISO8655 to ISO8655:2022
		100 µl to 200 µl	±0.8 µl	ISO 8655 + inhouse procedures CALB-015, and CALB-025	Multi channel fixed and variable volume pipettes	Update ISO8655 to ISO8655:2022

	2,500 µl to 5,000 µl	±22 µl	ISO 8655 + inhouse procedures CALB-015, and CALB-029	Multi channel fixed and variable volume pipettes	Update ISO8655 to ISO8655:2022
	20 µl to 50 µl	±0.27 µl	ISO 8655 + inhouse procedures CALB-015, and CALB-023	Multi channel fixed and variable volume pipettes	Update ISO8655 to ISO8655:2022
	200 µl to 500 µl	±2.5 µl	ISO 8655 + inhouse procedures CALB-015, and CALB-026	Multi channel fixed and variable volume pipettes	Update ISO8655 to ISO8655:2022
	5 µl to 10 µl	±0.11 µl	ISO 8655 + inhouse procedures CALB-015, and CALB-021	Multi channel fixed and variable volume pipettes	Update ISO8655 to ISO8655:2022
	5,000 µl to 10,000 µl	±75 µl	ISO 8655 + inhouse procedures CALB-015, and CALB-030	Multi channel fixed and variable volume pipettes	Update ISO8655 to ISO8655:2022
	50 µl to 100 µl	±0.61 µl	ISO 8655 + inhouse procedures CALB-015, and CALB-024	Multi channel fixed and variable volume pipettes	Update ISO8655 to ISO8655:2022
	500 µl to 1,000 µl	±4.3 µl	ISO 8655 + inhouse procedures CALB-015, and CALB-027	Multi channel fixed and variable volume pipettes	Update ISO8655 to ISO8655:2022
Single channel pipettes	.02 µl to 1 µl	±0.09 µl	ISO 8655 + inhouse procedures CALB-015, and CALB-020	Single channel fixed and variable volume pipettes	Update ISO8655 to ISO8655:2022

1 µl to 5 µl	± 0.09 µl	ISO 8655 + inhouse procedures CALB- 015, and CALB- 021	Single channel fixed and variable volume pipettes	Update ISO8655 to ISO8655:2022
1,000 µl to 2,500 µl	±8.7 µl	ISO 8655 + inhouse procedures CALB- 015, and CALB- 029	Single channel fixed and variable volume pipettes	Update ISO8655 to ISO8655:2022
10 µl < to 20 µl	±0.16 µl	ISO 8655 + inhouse procedures CALB- 015, and CALB- 023	Single channel fixed and variable volume pipettes	Update ISO8655 to ISO8655:2022
100 µl to 200 µl	±0.8 µl	ISO 8655 + inhouse procedures CALB- 015, and CALB- 026	Single channel fixed and variable volume pipettes	Update ISO8655 to ISO8655:2022
2,500 µl to 5,000 µl	±22 µl	ISO 8655 + inhouse procedures CALB- 015, and CALB- 030	Single channel fixed and variable volume pipettes	Update ISO8655 to ISO8655:2022
20 µl to 50 µl	±0.27 µl	ISO 8655 + inhouse procedures CALB- 015, and CALB- 024	Single channel fixed and variable volume pipettes	Update ISO8655 to ISO8655:2022
200 µl to 500 µl	±2.5 µl	ISO 8655 + inhouse procedures CALB- 015, and CALB- 027	Single channel fixed and variable volume pipettes	Update ISO8655 to ISO8655:2022
5 µl to 10 µl	±0.11 µl	ISO 8655 + inhouse procedures CALB- 015, and CALB- 022	Single channel fixed and variable volume pipettes	Update ISO8655 to ISO8655:2022

		5,000 µl v 10,000 µl	±75 µl	ISO 8655 + inhouse procedures CALB-015, and CALB-031	Single channel fixed and variable volume pipettes	Update ISO8655 to ISO8655:2022
		50 µl to 100 µl	±0.61 µl	ISO 8655 + inhouse procedures CALB-015, and CALB-025	Single channel fixed and variable volume pipettes	Update ISO8655 to ISO8655:2022
		500 µl to 1,000 µl	±4.3 µl	ISO 8655 + inhouse procedures CALB-015, and CALB-028	Single channel fixed and variable volume pipettes	Update ISO8655 to ISO8655:2022
104 Volume - .99 Other equipment	Dispensers	1 µl to 5 µl	±0.09 µl	Gravimetric method based on ISO 8655-5:2002 and documented in-house methods CALB-019 and CALB-020.	dispensor piston and/or plunger operated volumetric apparatus	Update ISO8655-5:2002 to ISO8655:2022
		1,000 µl to 2,500 µl	±8.7 µl	Gravimetric method based on ISO 8655-5:2002 and documented in-house methods CALB-019 and CALB-020.	dispensor piston and/or plunger operated volumetric apparatus	Update ISO8655-5:2002 to ISO8655:2022
		10 µl to 20 µl	±0.16 µl	Gravimetric method based on ISO 8655-5:2002 and documented in-house methods CALB-019 and CALB-020.	dispensor piston and/or plunger operated volumetric apparatus	Update ISO8655-5:2002 to ISO8655:2022
		100 µl to 200 µl	±0.80 µl	Gravimetric method based on ISO 8655-5:2002 and documented in-house methods	dispensor piston and/or plunger operated volumetric apparatus	Update ISO8655-5:2002 to ISO8655:2022

		CALB-019 and CALB-020.		
10ml to 50ml	75 µl	Gravimetric method based on ISO 8655-5:2002 and documented in-house methods CALB-019 and CALB-020.	dispensor piston and/or plunger operated volumetric apparatus	Update ISO8655-5:2002 to ISO8655:2022
2,500 µl to 5,000 µl	±22 µl	Gravimetric method based on ISO 8655-5:2002 and documented in-house methods CALB-019 and CALB-020.	dispensor piston and/or plunger operated volumetric apparatus	Update ISO8655-5:2002 to ISO8655:2022
20 µl to 50 µl	±0.27 µl	Gravimetric method based on ISO 8655-5:2002 and documented in-house methods CALB-019 and CALB-020.	dispensor piston and/or plunger operated volumetric apparatus	Update ISO8655-5:2002 to ISO8655:2022
200 µl to 500 µl	±2.5 µl	Gravimetric method based on ISO 8655-5:2002 and documented in-house methods CALB-019 and CALB-020.	dispensor piston and/or plunger operated volumetric apparatus	Update ISO8655-5:2002 to ISO8655:2022
5 µl to 10 µl	±0.11 µl	Gravimetric method based on ISO 8655-5:2002 and documented in-house methods CALB-019 and CALB-020.	dispensor piston and/or plunger operated volumetric apparatus	Update ISO8655-5:2002 to ISO8655:2022
5,000 µl to 10,000 µl	±75 µl	Gravimetric method based on ISO 8655-5:2002 and documented	dispensor piston and/or plunger operated volumetric apparatus	Update ISO8655-5:2002 to ISO8655:2022

				in-house methods CALB-019 and CALB-020.		
		50 µl to 100 µl	±0.61 µl	Gravimetric method based on ISO 8655-5:2002 and documented in-house methods CALB-019 and CALB-020.	dispensor piston and/or plunger operated volumetric apparatus	Update ISO8655-5:2002 to ISO8655:2022
		500 µl to 1,000 µl	±4.3 µl	Gravimetric method based on ISO 8655-5:2002 and documented in-house methods CALB-019 and CALB-020.	dispensor piston and/or plunger operated volumetric apparatus	Update ISO8655-5:2002 to ISO8655:2022
		50ml to 100ml	75 µl	Gravimetric method based on ISO 8655-5:2002 and documented in-house methods CALB-019 and CALB-020.	dispensor piston and/or plunger operated volumetric apparatus	Update ISO8655-5:2002 to ISO8655:2022
107 Temperature measuring equipment - .09 Digital temperature indicator systems	Degrees C	-80°C to 210°C	0.038°C	In house Procedure CALB-047	Thermometers/ Digital Indicators	

*Calibration Measurement Capability (CMC) is expressed in terms of the following parameters:*

- Measurand or reference material*
- Calibration or measurement method or procedure and type of instrument or material calibrated/measured*
- Measurement range and additional parameters where applicable*
- Measurement uncertainty.*

*Measurement uncertainty shall be reported in compliance with EA 4/02 "Evaluation of the Uncertainty of Measurement in Calibration".*

*In accordance with INAB policy, uncertainties are calculated for an estimated confidence level of not less than 95%.*

Category: B

Metrology field - Calibrated Device Type	Measured quantity	Calibration range	Expanded Measurement Uncertainty	Std. ref/SOP	Products	Remarks
101 Mass - .01 Precision laboratory balances	Precision Laboratory Balances	1 mg to 5 g	±0.024 mg	Documented in-house procedure CALB 029, based on EURAMET cg-18	Precision Laboratory Balances	
		100 g to 200 g	±0.27 mg	Documented in-house procedure CALB 029, based on EURAMET cg-18	Precision Laboratory Balances	
		20 g to 50 g	±0.074 mg	Documented in-house procedure CALB 029, based on EURAMET cg-18	Precision Laboratory Balances	
		200 g to 500 g	±0.73 mg	Documented in-house procedure CALB 029, based on EURAMET cg-18	Precision Laboratory Balances	
		50 g to 100 g	±0.14 mg	Documented in-house procedure CALB 029, based on EURAMET cg-18	Precision Laboratory Balances	
		500 g to 1200 g	±2.8 mg	Documented in-house procedure CALB 029, based on EURAMET cg-18	Precision Laboratory Balances	



		5g to 20g	±0.045mg	Documented in-house procedure CALB 029, based on EURAMET cg-18	Precision Laboratory Balances	
101 Mass - .02 Industrial balances	Industrial Balances	1 g to 100 g	±0.21 mg	Documented in-house procedure CALB 029, based on EURAMET cg-18	Industrial Balances	
		100 g to 200 g	±0.46 mg	Documented in-house procedure CALB 029, based on EURAMET cg-18	Industrial Balances	
		1000 g to 2000 g	±24 mg	Documented in-house procedure CALB 029, based on EURAMET cg-18	Industrial Balances	
		200 g to 600 g	±2.8 mg	Documented in-house procedure CALB 029, based on EURAMET cg-18	Industrial Balances	
		2000 g to 5000 g	±25 mg	Documented in-house procedure CALB 029, based on EURAMET cg-18	Industrial Balances	
		5000 g to 11000 g	±277 mg	Documented in-house procedure CALB 029, based on EURAMET cg-18	Industrial Balances	
		600 g to 1000 g	±3.1 mg	Documented in-house procedure CALB 029, based on EURAMET cg-18	Industrial Balances	

104 Volume - .02 Special laboratory volumetric apparatus	Multi Channel pipettes	1 µl to 5 µl	±0.09 µl	ISO 8655 + inhouse procedures CALB-015, and CALB-020	Multi channel fixed and variable volume pipettes	Update ISO8655 to ISO8655:2022
		1,000 µl to 2,500 µl	±8.7 µl	ISO 8655 + inhouse procedures CALB-015, and CALB-027	Multi channel fixed and variable volume pipettes	Update ISO8655 to ISO8655:2022
		10 µl to 20 µl	±0.16 µl	ISO 8655 + inhouse procedures CALB-015, and CALB-021	Multi channel fixed and variable volume pipettes	Update ISO8655 to ISO8655:2022
		100 µl to 200 µl	±0.8 µl	ISO 8655 + inhouse procedures CALB-015, and CALB-024	Multi channel fixed and variable volume pipettes	Update ISO8655 to ISO8655:2022
		2,500 µl to 5,000 µl	±22 µl	ISO 8655 + inhouse procedures CALB-015, and CALB-028	Multi channel fixed and variable volume pipettes	Update ISO8655 to ISO8655:2022
		20 µl to 50 µl	±0.27 µl	ISO 8655 + inhouse procedures CALB-015, and CALB-022	Multi channel fixed and variable volume pipettes	Update ISO8655 to ISO8655:2022
		200 µl to 500 µl	±2.5 µl	ISO 8655 + inhouse procedures CALB-015, and CALB-025	Multi channel fixed and variable volume pipettes	Update ISO8655 to ISO8655:2022
		5 µl to 10 µl	±0.11 µl	ISO 8655 + inhouse procedures CALB-015, and CALB-020	Multi channel fixed and variable volume pipettes	Update ISO8655 to ISO8655:2022

	5,000 µl to 10,000 µl	±75 µl	ISO 8655 + inhouse procedures CALB-015, and CALB-029	Multi channel fixed and variable volume pipettes	Update ISO8655 to ISO8655:2022
	50 µl to 100 µl	±0.61 µl	ISO 8655 + inhouse procedures CALB-015, and CALB-023	Multi channel fixed and variable volume pipettes	Update ISO8655 to ISO8655:2022
	500 µl to 1,000 µl	±4.3 µl	ISO 8655 + inhouse procedures CALB-015, and CALB-026	Multi channel fixed and variable volume pipettes	Update ISO8655 to ISO8655:2022
Single channel pipettes	.02 µl to 1 µl	±0.09 µl	ISO 8655 + inhouse procedures CALB-015, and CALB-020	Single channel fixed and variable volume pipettes	Update ISO8655 to ISO8655:2022
	1 µl to 5 µl	±0.09 µl	ISO 8655 + inhouse procedures CALB-015, and CALB-020	Single channel fixed and variable volume pipettes	Update ISO8655 to ISO8655:2022
	1,000 µl to 2,500 µl	±8.7 µl	ISO 8655 + inhouse procedures CALB-015, and CALB-028	Single channel fixed and variable volume pipettes	Update ISO8655 to ISO8655:2022
	10 µl to 20 µl	±0.16 µl	ISO 8655 + inhouse procedures CALB-015, and CALB-022	Single channel fixed and variable volume pipettes	Update ISO8655 to ISO8655:2022
	100 µl to 200 µl	±0.8 µl	ISO 8655 + inhouse procedures CALB-015, and CALB-025	Single channel fixed and variable volume pipettes	Update ISO8655 to ISO8655:2022

		2,500 µl to 5,000 µl	±22 µl	ISO 8655 + inhouse procedures CALB-015, and CALB-029	Single channel fixed and variable volume pipettes	Update ISO8655 to ISO8655:2022
		20 µl to 50 µl	±0.27 µl	ISO 8655 + inhouse procedures CALB-015, and CALB-023	Single channel fixed and variable volume pipettes	Update ISO8655 to ISO8655:2022
		200 µl to 500 µl	±2.5 µl	ISO 8655 + inhouse procedures CALB-015, and CALB-026	Single channel fixed and variable volume pipettes	Update ISO8655 to ISO8655:2022
		5 µl to 10 µl	±0.11 µl	ISO 8655 + inhouse procedures CALB-015, and CALB-021	Single channel fixed and variable volume pipettes	Update ISO8655 to ISO8655:2022
		5,000 µl to 10,000 µl	±75 µl	ISO 8655 + inhouse procedures CALB-015, and CALB-030	Single channel fixed and variable volume pipettes	Update ISO8655 to ISO8655:2022
		50 µl to 100 µl	±0.61 µl	ISO 8655 + inhouse procedures CALB-015, and CALB-024	Single channel fixed and variable volume pipettes	Update ISO8655 to ISO8655:2022
		500 µl to 1,000 µl	±4.3 µl	ISO 8655 + inhouse procedures CALB-015, and CALB-027	Single channel fixed and variable volume pipettes	Update ISO8655 to ISO8655:2022
104 Volume - .99 Other equipment	Dispensers	1 µl to 5 µl	±0.09 µl	Gravimetric method based on ISO 8655-5:2002 and documented in-house methods	dispensor piston and/or plunger operated volumetric apparatus	Update ISO8655-5:2002 to ISO8655:2022

				CALB-019 and CALB-020.		
		1,000 µl to 2,500 µl	±8.7 µl	Gravimetric method based on ISO 8655-5:2002 and documented in-house methods CALB-019 and CALB-020.	dispensor piston and/or plunger operated volumetric apparatus	Update ISO8655-5:2002 to ISO8655:2022
		10 µl to 20 µl	±0.16 µl	Gravimetric method based on ISO 8655-5:2002 and documented in-house methods CALB-019 and CALB-020.	dispensor piston and/or plunger operated volumetric apparatus	Update ISO8655-5:2002 to ISO8655:2022
		100 µl to 200 µl	±0.80 µl	Gravimetric method based on ISO 8655-5:2002 and documented in-house methods CALB-019 and CALB-020.	dispensor piston and/or plunger operated volumetric apparatus	Update ISO8655-5:2002 to ISO8655:2022
		10ml to 50ml	75 µl	Gravimetric method based on ISO 8655-5:2002 and documented in-house methods CALB-019 and CALB-020.	dispensor piston and/or plunger operated volumetric apparatus	Update ISO8655-5:2002 to ISO8655:2022
		2,500 µl to 5,000 µl	±22 µl	Gravimetric method based on ISO 8655-5:2002 and documented in-house methods CALB-019 and CALB-020.	dispensor piston and/or plunger operated volumetric apparatus	Update ISO8655-5:2002 to ISO8655:2022
		20 µl to 50 µl	±0.27 µl	Gravimetric method based on ISO 8655-5:2002 and documented	dispensor piston and/or plunger operated volumetric apparatus	Update ISO8655-5:2002 to ISO8655:2022

		in-house methods CALB-019 and CALB-020.		
200 µl to 500 µl	±2.5 µl	Gravimetric method based on ISO 8655-5:2002 and documented in-house methods CALB-019 and CALB-020.	dispensor piston and/or plunger operated volumetric apparatus	Update ISO8655- 5:2002 to ISO8655:2022
5 µl to 10 µl	±0.11 µl	Gravimetric method based on ISO 8655-5:2002 and documented in-house methods CALB-019 and CALB-020.	dispensor piston and/or plunger operated volumetric apparatus	Update ISO8655- 5:2002 to ISO8655:2022
5,000 µl to 10,000 µl	±75 µl	Gravimetric method based on ISO 8655-5:2002 and documented in-house methods CALB-019 and CALB-020.	dispensor piston and/or plunger operated volumetric apparatus	Update ISO8655- 5:2002 to ISO8655:2022
50 µl to 100 µl	±0.61 µl	Gravimetric method based on ISO 8655-5:2002 and documented in-house methods CALB-019 and CALB-020.	dispensor piston and/or plunger operated volumetric apparatus	Update ISO8655- 5:2002 to ISO8655:2022
500 µl to 1,000 µl	±4.3 µl	Gravimetric method based on ISO 8655-5:2002 and documented in-house methods CALB-019 and CALB-020.	dispensor piston and/or plunger operated volumetric apparatus	Update ISO8655- 5:2002 to ISO8655:2022
50ml to 100ml	75 µl	Gravimetric method based on ISO 8655-5:2002	dispensor piston and/or plunger	Update ISO8655- 5:2002 to ISO8655:2022

				and documented in-house methods CALB-019 and CALB-020.	operated volumetric apparatus	
107 Temperature measuring equipment - .09 Digital temperature indicator systems	Degrees C	-40°C to 135°C	0.22°C	In house Procedure CALB-047	Thermometers/ Digital Indicators	
108 Temperature controlled enclosures	Temperature	30-140 Degrees C	0.35 Degrees C	CALB 02 Accredited Heatblock Thermal Mapping SOP	Blocks, Surfaces	
108 Temperature controlled enclosures - .01 Ovens, furnaces, baths	Ovens, refrigerators, freezers and baths	-20 °C to +130 °C (Using wireless thermistor based data loggers)	±0.12 °C	In-house SOP CALB 017, EN 60068-3-5:2002, EN60068-3-11:2007	Ovens, refrigerators, freezers and baths	
		-90 °C to +130 °C Using PT100 probes	±0.09 °C	In-house SOP CALB 017, EN 60068-3-5:2002, EN60068-3-11:2007	Ovens, refrigerators, freezers and baths	
108 Temperature controlled enclosures - .02 Incubators	Incubators	-20 °C to +130 °C (Using wireless thermistor based data loggers)	±0.12 °C	In-house SOP CALB 017, EN 60068-3-5:2002, EN60068-3-11:2007	Incubators	
		-90 °C to +130 °C Using PT100 probes	±0.09 °C	In-house SOP CALB 017, EN 60068-3-5:2002, EN60068-3-11:2007	Incubators	
108 Temperature controlled enclosures - .03 Autoclaves and sterilising ovens	Autoclaves & Steam Sterilisers	+80 °C to +140 °C	±0.12 °C	In-house SOP CALB 017, CALB 032, EN 60068-3-5:2002, EN60068-3-11:2007	Autoclaves & Steam Sterilisers	
		-20 °C to +130 °C (Using wireless	±0.12 °C	In-house SOP CALB 017, CALB 032, EN 60068-3-	Autoclaves & Steam Sterilisers	

		thermistor based data loggers)		5:2002, EN60068-3-11:2007		
		-90 °C to +130 °C Using PT100 probes	±0.09 °C	In-house SOP CALB 017, CALB 032, EN 60068-3-5:2002, EN60068-3-11:2007	Autoclaves & Steam Sterilisers	
108 Temperature controlled enclosures - .04 Industrial freezers	Industrial freezers	-20 °C to +130 °C (Using wireless thermistor based data loggers)	±0.12 °C	In-house SOP CALB 017, EN 60068-3-5:2002, EN60068-3-11:2007	Industrial freezers	
		-80 °C to -20 °C (Using wireless thermistor based data loggers)	±0.34 °C	In-house SOP CALB 017, EN 60068-3-5:2002, EN60068-3-11:2007	Industrial freezers	
		-90 °C to +130 °C Using PT100 probes	±0.09 °C	In-house SOP CALB 017, EN 60068-3-5:2002, EN60068-3-11:2007	Industrial freezers	
112 Speed - .01 Centrifuges	Centrifuges	Rotational Speed 0 to 30,000 RPM	±3.2 RPM	Documented inhouse method CALB 030, Calibration of Centrifuges.	Centrifuges	
113 Time - .99 Other	Autoclaves & Steam Sterilisers	0 to 120 minutes	± 0.1 second	In-house SOP CALB 017, CALB 032	Autoclaves & Steam Sterilisers	
	Time	30 to 3600 second	±1 second	Documented inhouse method CALB 030, Calibration of Centrifuges.	Centrifuges	

*Calibration Measurement Capability (CMC) is expressed in terms of the following parameters:*

- Measurand or reference material*
- Calibration or measurement method or procedure and type of instrument or material calibrated/measured*
- Measurement range and additional parameters where applicable*
- Measurement uncertainty.*



*Measurement uncertainty shall be reported in compliance with EA 4/02 "Evaluation of the Uncertainty of Measurement in Calibration".  
In accordance with INAB policy, uncertainties are calculated for an estimated confidence level of not less than 95%.*