

# Product certificate Amino Acids



**Product name** Control Amino Acids

Product code	Product code	Colour cap
	AMI-02.1	Green
	AMI-02.2	Red

**Date of issue** 10-04-2017

Batch numbers and Expiry date	Batch number	Exp. date stored at +2°C to +8°C
	2017.0061	<b>2021-09</b>
	2017-0062	<b>2021-09</b>

**Reconstitution volume** 1.0 mL

## Calculated Consensus Values

Analyte	Level 1		Level 2	
	Calculated Consensus Value (µmol/L) *	Range laboratories *	Calculated Consensus Value (µmol/L) *	Range laboratories *
2-Aminobutyric acid	31,2	28 - 35	94,7	84 - 108
Alanine	318	272 - 350	925	758 - 1023
Arginine	16,59	15 - 19	519	456 - 596
Asparagine	107,7	86 - 132	222	177 - 271
Aspartic acid	12,0	7 - 14	99,6	79 - 117
Citrulline	4,63	3 - 6	415	374 - 515
Cystathionine	9,95	9 - 12	29,6	26 - 35
Cystine	32,5	27 - 42	69,4	62 - 83
Glutamic acid	107	81 - 121	223	186 - 245
Glutamine	575	440 - 747	1165	910 - 1531
Glycine	516	436 - 594	1021	864 - 1201
Histidine	203	168 - 242	398	332 - 459
Hydroxyproline	48,0	33 - 58	98	67 - 112
Isoleucine	52,1	49 - 59	398	308 - 474
Leucine	26,8	22 - 30	890	633 - 1035
Lysine	271	211 - 308	534	480 - 593
Methionine	79,9	70 - 94	241	217 - 291
Ornithine	159	144 - 178	639	562 - 703
Phenylalanine	341	250 - 367	681	586 - 750
Pipecolic acid	44,6	35 - 50	92,6	80 - 105
Proline	301	260 - 350	602	534 - 715
Serine	154	135 - 173	463	407 - 524
Taurine	213	182 - 249	417	340 - 529
Threonine	205	164 - 235	408	353 - 473
D-Tryptophan	116	90 - 127	292	232 - 330
Tyrosine	234	211 - 248	927	790 - 1017
Valine	416	380 - 473	823	732 - 970

\* See Value Assignment and Ranges at the reverse



## Amino Acids

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### Intended purpose

Control of analytical systems for the determination of amino acids in serum or plasma.

### Contents

Lyophilized human serum to which amino acids have been added to achieve an analytically and physiologically relevant level of the amino acids.

### Value Assignment and Ranges

The samples were measured in 20 selected, well performing laboratories (performance score <3 in the ERNDIM EQA programme). The assigned value is the mean value (see reverse of this product certificate). The column with the range of laboratories shows the range as measured by these laboratories.

### Storage and stability

The product in lyophilized form is stable for 5 years when stored at +2°C to + 8°C. Expiration dates are found on the product certificate (reverse). The stability of the reconstituted product is comparable to patient samples.

### Instructions for use

- a. Remove cap and stopper.
- b. Add 1 mL aqua destillata
- c. Replace stopper
- d. Let stand for 15 minutes at room temperature
- e. Mix carefully during 20 minutes at room temperature
- f. Process product as patient sample, i.e. it is advisable to immediately deproteinise samples and separate the supernatant to minimise stability problems of certain amino acids.
- g. If not analysed on the same day according to your usual procedure for patient samples in your laboratory, the supernatant should be stored at -24°C to -16°C.

### Precautions and warnings

1. For *in vitro* diagnostic use only.
2. Tested and found negative for Hepatitis B Surface Antigen (HbsAg), antibody to hepatitis C (HCV) and antibody to HIV.
3. This product should be handled with care, as appropriate for biological materials. Outdated and left-over material should be discarded as potentially infectious material, according to the procedures in your institute.

### Remark

These materials are made available by the MCA Laboratory following the desire to have control materials available at two concentration levels. The scientific board of ERNDIM advised on concentration levels but it should be stated that neither ERNDIM or the Scientific Advisor of the ERNDIM Amino Acid Programme has responsibilities for this product.

### References

[www.ERNDIMQA.nl](http://www.ERNDIMQA.nl)

Dr. C.W. Weykamp

