

**Reference Interval:**  
Effective November 18, 2019

| Components             | Reference Interval              |                                  |
|------------------------|---------------------------------|----------------------------------|
| α-Aminoadipic acid     | Less than or equal to 4 μmol/L  |                                  |
| α-Amino-n-butyric acid | Less than or equal to 40 μmol/L |                                  |
| Alanine                | <b>Age</b>                      | <b>Reference Interval</b>        |
|                        | 0-30 days                       | 140-480 μmol/L                   |
|                        | 1 month-11 months               | 150-520 μmol/L                   |
|                        | 1 year and older                | 160-530 μmol/L                   |
| Alloisoleucine         | Less than or equal to 5 μmol/L  |                                  |
| Anserine               | Less than or equal to 5 μmol/L  |                                  |
| Arginine               | <b>Age</b>                      | <b>Reference Interval</b>        |
|                        | 0-30 days                       | 16-140 μmol/L                    |
|                        | 1 month-11 months               | 35-140 μmol/L                    |
|                        | 1 year and older                | 35-125 μmol/L                    |
| Argininosuccinic acid  | Less than or equal to 2 μmol/L  |                                  |
| Asparagine             | 20-80 μmol/L                    |                                  |
| Aspartic acid          | <b>Age</b>                      | <b>Reference Interval</b>        |
|                        | 0-30 days                       | Less than or equal to 45 μmol/L  |
|                        | 1 month-11 months               | Less than or equal to 30 μmol/L  |
|                        | 1 year and older                | Less than or equal to 15 μmol/L  |
| β-Alanine              | Less than or equal to 25 μmol/L |                                  |
| β-Aminoisobutyric acid | <b>Age</b>                      | <b>Reference Interval</b>        |
|                        | 0 day to 11 months              | Less than or equal to 15 μmol/L  |
|                        | 1 year and older                | Less than or equal to 10 μmol/L  |
| Citrulline             | <b>Age</b>                      | <b>Reference Interval</b>        |
|                        | 0 day to 11 months              | 7-40 μmol/L                      |
|                        | 1 year and older                | 10-45 μmol/L                     |
| Cystathionine          | Less than or equal to 5 μmol/L  |                                  |
| Cystine                | <b>Age</b>                      | <b>Reference Interval</b>        |
|                        | 0-30 days                       | 10-60 μmol/L                     |
|                        | 1 month-11 months               | 10-50 μmol/L                     |
|                        | 1 year and older                | 10-65 μmol/L                     |
| Ethanolamine           | <b>Age</b>                      | <b>Reference Interval</b>        |
|                        | 0-30 days                       | Less than or equal to 100 μmol/L |
|                        | 1 month-11 months               | Less than or equal to 25 μmol/L  |
|                        | 1 year and older                | Less than or equal to 15 μmol/L  |
| γ-Amino-n-butyric acid | Less than or equal to 5 μmol/L  |                                  |
| Glutamic acid          | <b>Age</b>                      | <b>Reference Interval</b>        |
|                        | 0-30 days                       | 30-240 μmol/L                    |
|                        | 1 month-11 months               | 30-210 μmol/L                    |
|                        | 1 year and older                | 15-130 μmol/L                    |
| Glutamine              | <b>Age</b>                      | <b>Reference Interval</b>        |
|                        | 0-30 days                       | 295-900 μmol/L                   |
|                        | 1 month-11 months               | 400-850 μmol/L                   |
|                        | 1 year and older                | 380-680 μmol/L                   |
| Glycine                | <b>Age</b>                      | <b>Reference Interval</b>        |
|                        | 0-30 days                       | 160-470 μmol/L                   |
|                        | 1 month-11 months               | 120-375 μmol/L                   |
|                        | 1 year and older                | 140-420 μmol/L                   |
| Histidine              | 50-130 μmol/L                   |                                  |
| Homocitrulline         | Less than or equal to 5 μmol/L  |                                  |
| Homocystine            | Less than or equal to 2 μmol/L  |                                  |
| Hydroxylysine          | Less than or equal to 5 μmol/L  |                                  |
| Hydroxyproline         | <b>Age</b>                      | <b>Reference Interval</b>        |
|                        | 0-30 days                       | 15-90 μmol/L                     |
|                        | 1 month-11 months               | 10-70 μmol/L                     |
|                        | 1 year and older                | 5-40 μmol/L                      |
| Isoleucine             | <b>Age</b>                      | <b>Reference Interval</b>        |
|                        | 0-30 days                       | 20-110 μmol/L                    |
|                        | 1 month and older               | 30-120 μmol/L                    |

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|               |                                |                           |
|---------------|--------------------------------|---------------------------|
| Leucine       | <b>Age</b>                     | <b>Reference Interval</b> |
|               | 0-11 months                    | 50-180 µmol/L             |
|               | 1 year and older               | 60-180 µmol/L             |
| Lysine        | <b>Age</b>                     | <b>Reference Interval</b> |
|               | 0-30 days                      | 70-270 µmol/L             |
|               | 1 month-11 months              | 80-260 µmol/L             |
|               | 1 year and older               | 85-230 µmol/L             |
| Methionine    | <b>Age</b>                     | <b>Reference Interval</b> |
|               | 0-11 months                    | 15-55 µmol/L              |
|               | 1 year and older               | 15-40 µmol/L              |
| Ornithine     | <b>Age</b>                     | <b>Reference Interval</b> |
|               | 0-30 days                      | 30-180 µmol/L             |
|               | 1 month-11 months              | 30-140 µmol/L             |
|               | 1 year and older               | 25-110 µmol/L             |
| Phenylalanine | <b>Age</b>                     | <b>Reference Interval</b> |
|               | 0-30 days                      | 30-95 µmol/L              |
|               | 1 month-11 months              | 30-90 µmol/L              |
|               | 1 year and older               | 30-82 µmol/L              |
| Proline       | <b>Age</b>                     | <b>Reference Interval</b> |
|               | 0-30 days                      | 110-340 µmol/L            |
|               | 1 month-11 months              | 100-320 µmol/L            |
|               | 1 year and older               | 90-350 µmol/L             |
| Sarcosine     | Less than or equal to 5 µmol/L |                           |
| Serine        | <b>Age</b>                     | <b>Reference Interval</b> |
|               | 0-30 days                      | 90-340 µmol/L             |
|               | 1 month-11 months              | 90-275 µmol/L             |
|               | 1 year and older               | 60-170 µmol/L             |
| Taurine       | <b>Age</b>                     | <b>Reference Interval</b> |
|               | 0-30 days                      | 30-250 µmol/L             |
|               | 1 month-11 months              | 30-170 µmol/L             |
|               | 1 year and older               | 30 -130 µmol/L            |
| Threonine     | <b>Age</b>                     | <b>Reference Interval</b> |
|               | 0-30 days                      | 60-400 µmol/L             |
|               | 1 month-11 months              | 60-310 µmol/L             |
|               | 1 year and older               | 60-190 µmol/L             |
| Tryptophan    | <b>Age</b>                     | <b>Reference Interval</b> |
|               | 0-30 days                      | 15-75 µmol/L              |
|               | 1 month-11 months              | 20-85 µmol/L              |
|               | 1 year and older               | 25-80 µmol/L              |
| Tyrosine      | <b>Age</b>                     | <b>Reference Interval</b> |
|               | 0-30 days                      | 30-140 µmol/L             |
|               | 1 month-11 months              | 30-130 µmol/L             |
|               | 1 year and older               | 35-110 µmol/L             |
| Valine        | <b>Age</b>                     | <b>Reference Interval</b> |
|               | 0-30 days                      | 80-270 µmol/L             |
|               | 1 month-11 months              | 90-310 µmol/L             |
|               | 1 year and older               | 120-320 µmol/L            |