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PROIMMUN BIOM doo
Diagnostik-Zentrum Zagreb

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Laboratory report

Final Report, page 1 of 2



Sample Material: urine

Test	Result	Unit	Initial Result	Norm
clinical chemistry				
Creatinine in urine (Jaffe)	1,86	g/l	1,48	0,36 - 2,37
Please mind the altered normal range.				

micronutrients




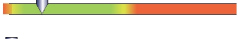

Please note:

Please note the changes in reference ranges of heavy metals in the urine!





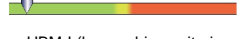



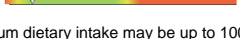

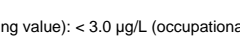

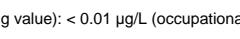



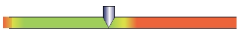

Analyses correlated to creatinine:

Creatinine-related values are only to be used for interpretation after mobilization.

Aluminium i. urine	2,8	µg/g Krea		< 30,0
Antimony in urine	0,13	µg/g Krea		< 1,5
Arsenic in urine	1,0	µg/g Krea		< 40,0
Because of the high levels of arsenic in seafood and deep sea fish (non-harmful organic compounds), the patient's diet should be considered.				
lead in urine	0,19	µg/g Krea		< 15,0
Cadmium (urine)	0,04	µg/g Krea		< 1,5
Chrome in urine	0,2	µg/g Krea		< 2,5
Iron in urine	2,2	µg/g Krea		4,0 - 30,0
Cobalt in urine	0,31	µg/g Krea		< 3,0
Copper in urine	4,3	µg/g Krea		5,0 - 60,0
Molybdenum in urine	38,65	µg/g Krea		< 80,0
Nickel in urine	0,99	µg/g Krea		< 5,0
Palladium in urine	0,2	µg/g Krea		< 2,0
Platinum in urine	0,010	µg/g Krea		< 0,05

Mercury in urine	2,7	µg/g Krea		< 5,0
<p>HBM-I (Human biomonitoring value I): < 5.0 µg/g creatinine HBM-II (Human biomonitoring value II): < 20.0 µg/g creatinine (environmental medicine guideline "Human Biomonitoring", as of 09/2011). BLV (biological limit value) for total mercury: < 25.0 µg/g creatinine (occupational health guideline S1 "Biomonitoring", as of 3/2013).</p>				
Silver in urine	0,03	µg/g Krea		< 1,5
Thallium in urine	0,071	µg/g Krea		< 1,5
Zinc in urine	234,8	µg/g Krea		15,0 - 800,0
Tin in urine	0,07	µg/g Krea		< 3,0

Analyses µg/l:

Aluminium i. urine	5,3	µg/l		< 15,0
<p>BLV (biological limit value): < 300 µg/L at the end of the work shift (Labor & Diagnose, 8. Auflage, 2012). In long-term exposure, toxic effects may occur above 100 µg/L.</p>				
antimony in urine	<0.25	µg/l		< 0,5
Arsenic i. urine	1,8	µg/l		< 15,0
<p>BGV (biological guidance value): < 50 µg/L HBM (human biomonitoring value): < 15 µg/L</p>				
lead in urine	0,35	µg/l		< 8,0
<p>BLV (biological limit value) for total lead: < 50 µg/L (occupational health guideline "Biomonitoring", as of 3/2013).</p>				
Cadmium (urine)	0,08	µg/l		< 0,5
<p>HBM-I (human biomonitoring value I): < 1.0 µg/L (adults), < 0.5 µg/L (children). HBM-II (human biomonitoring value II): < 4.0 µg/L (adults), < 2.0 µg/L (children).</p>				
Chrome in urine	<0.4	µg/l		< 1,5
<p>Reference value: < 1.5 µg/L (Lexikon der medizinischen Laboratoriumsdiagnostik, 2007).</p>				
Iron in urine	<4.0	µg/l		4,0 - 20,0
Cobalt in urine	0,58	µg/l		< 1,0
<p>TLV (threshold limit value): < 60 µg/L at the end of the work shift (Lexikon der medizinischen Laboratoriumsdiagnostik, 2007).</p>				
Copper in urine	8,0	µg/l		3,0 - 40,0
<p>Maximum dietary intake may be up to 1000 µg/day (Labor & Diagnose, 8th edition, 2012).</p>				
Molybdenum in urine	71,89	µg/l		< 16,0
Nickel in urine	1,85	µg/l		< 3,0
<p>HBM (human biomonitoring value): < 3.0 µg/L (occupational health guideline "Biomonitoring", as of 3/2013).</p>				
Palladium in urine	<0.4	µg/l		< 0,4
Platinum in urine	<0.010	µg/l		< 0,01
<p>HBM (human biomonitoring value): < 0.01 µg/L (occupational health guideline "Biomonitoring", as of 3/2013).</p>				
Mercury in urine	5,0	µg/l		< 3,0
<p>HBM-I (Human biomonitoring value I): < 7.0 µg/L HBM-II (Human biomonitoring value II): < 25.0 µg/L (environmental medicine guideline "Human Biomonitoring", as of 09/2011). Due to increasing levels of mercury in seafood and deep-sea fish in recent years, the patient's dietary habits should be taken into account.</p>				
Silver in urine	<0.05	µg/l		< 0,4
<p>TLV (threshold limit value): < 0.01 mg/m³ contamination at the workplace (Lexikon der medizinischen Laboratoriumsdiagnostik, 2007).</p>				
Thallium in urine	0,132	µg/l		< 0,5
<p>HBM (human biomonitoring value): < 0.5 µg/L.</p>				
Zinc in urine	436,7	µg/l		10,0 - 500,0
<p>Physiological enteral intake of zinc is up to 10 mg per day, with an absorption rate of 2.5 mg per day (Labor & Diagnose, 8th edition, 2012).</p>				
Tin in urine	0,13	µg/l		< 2,0
<p>TLV (threshold limit value): < 2 mg/m³ contamination at the workplace (Lexikon der medizinischen Laboratoriumsdiagnostik, 2007).</p>				

Many thanks for your investigatory assignment.

medically validated for Ganzimmun Diagnostics AG

All parameters marked with an * are tested at our accredited laboratory partners.

** study not accredited