					l	Irin	ary	' Me	etal	ooli	CF	Pro	file
13500 Linden Ave North Seattle, WA 98133 USA	Tel: (206) 3	65-1256 Fax: (206) 363-8790	www	.usbi	otek.c	om						
Physician:			Sex	:F				C	ollec	ted:	03/2	26/2	012
Patient:			Age	: 40				R	eceiv	/ed:	04/()2/2	012
Accession #:								Coi	mple	ted:	04/	10/2	012
		*Reference											
	Result	Range				Po	pulat	ion F	Ranki	ng			
Ohur a husia Matabalita a	(μ g/mg	creatinine)		0 10	20	30	40	50	60	70	80	90	99
Giycolysis Metabolites													
Pyruvate	4.03	\leq 3.50	(H) [
Lactate	5.46	\leq 6.50	[
Citric Acid Cycle Metabolites													
Citrate	53.1	75.0 - 160.0	(L) [
Cis-Aconitate	8.8	7.5 - 13.0	[]						
Isocitrate	16.4	18.0 - 30.0	(L) [
Alpha-Ketoglutarate	8.46	6.00 - 12.00	[_						
Succinate	0.59	0.50 - 1.10											
Fumarate	0.58	0.15 - 0.30	(H) l				_						
Malate	0.32	≤ 0.55	l										
Fatty Acid Oxidation													
Adipate	1.04	\leq 0.80	(H) [
Suberate	0.26	\leq 1.30	[
Ethylmalonate	1.24	≤ 1.10	(H)										
Methylsuccinate	0.31	\leq 0.60	l										
Ketone Metabolites													
Alpha-Hydroxybutyrate	0.83	≤ 0.35	(H) [_						
Beta-Hydroxybutyrate	67.60	\leq 2.00	(H) [_		_				
Markers for Cofactor Need													
Alpha-Ketoisovalerate	0.14	≤ 0.15	[
Alpha-Ketoisocaproate	0.26	\leq 0.20	(H) [_						
Alpha-Keto-Beta-Methylvalerate	0.50	\leq 0.25	(H)										
Beta-Hydroxyisovalerate	1.75	\leq 11.50	[
Methylmalonate	0.56	\leq 0.60	l										
Kynurenate	0.36	\leq 0.70	l				_						
Hydroxymethylglutarate	0.98	0.90 - 1.40	l										
Markers of Neurotransmitter Metabolism													
Vanilmandelate	0.63	0.75 - 1.20	(L) [
Homovanillate	0.91	0.90 - 1.60	Į										
5-Hydroxyindoleacetate	15.6	5.5 - 17.0	[
Quinolinate	35.5	\leq 45.0	[J				
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*Reference ranges are gender specific and periodically updated; Results are age adjusted for children.

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el: (206) 365-	1256 Fax: (206) (363-879 S a	0 www.us	sbiotek.con	ı									
	Tel: (206) 365-1256 Fax: (206) 363-8790 www.usbiotek.com Sex: F Age: 40						Collected: 03/26/2012 Received: 04/02/2012 Completed: 04/10/2012							
*Reference Result Range			0 10 2	Ρορι 20 30 4	latior	n Ranl	king 70	80 90 99						
(µg/mg 0100														
0.15 0.08 4.31 0.19 23.8	$\leq 0.30 \\ \leq 0.20 \\ 5.50 - 8.00 \\ \leq 2.00 \\ 40.0 - 175.0$	(L) (L)												
0.17 2.19 0.21 0.06 0.03	\leq 1.00 \leq 7.20 \leq 0.30 \leq 2.00 \leq 0.15													
	Result (μg/mg creations) 0.15 0.08 4.31 0.19 23.8 0.17 2.19 0.21 0.06 0.03	Hererence Result Range $(\mu g/mg \text{ creatinine})$ 0.15 \leq 0.30 0.08 \leq 0.20 4.31 5.50 - 8.00 0.19 \leq 2.00 23.8 40.0 - 175.0 0.17 \leq 1.00 2.19 \leq 7.20 0.21 \leq 0.30 0.06 \leq 2.00 0.03 \leq 0.15 \leq 0.15	Presult Range (μ g/mg creatinine) 0.15 \leq 0.30 0.08 \leq 0.20 4.31 5.50 - 8.00 (L) 0.19 \leq 2.00 23.8 40.0 - 175.0 (L) 0.17 \leq 1.00 2.19 \leq 7.20 0.21 \leq 0.30 0.06 \leq 2.00 0.03 \leq 0.15	'Heterence Result Range $(\mu g/mg \text{ creatinine})$ 0 10 2 $0.15 \leq 0.30$ $0.15 \leq 0.30$ $0.15 \leq 0.30$ $0.19 \leq 2.00$ 23.8 40.0 - 175.0 (L) $0.17 \leq 1.00$ $0.17 \leq 1.00$ $0.17 \leq 0.30$ $0.06 \leq 2.00$ $0.03 \leq 0.15$	Heterence Result Range Popul $(\mu g/mg creatinine)$ 0 10 20 30 4 $0.15 \leq 0.30$ $0.15 \leq 0.20$ 10 20 30 4 $0.19 \leq 2.00$ 23.8 $40.0 - 175.0$ (L) 10 20 30 4 $0.17 \leq 1.00$ $21.9 \leq 7.20$ $2.19 \leq 7.20$ $10.21 \leq 0.30$ $10.21 \leq 0.30$ $10.21 \leq 0.30$ $10.21 \leq 0.30$ $10.33 \leq 0.15$ $10.33 = 0.15$ <t< td=""><td>Teterence Result Range Population $(\mu g/mg creatinine)$ 0 10 20 30 40 50 $0.15 \leq 0.30$ $0.08 \leq 0.20$ $0.13 \leq 0.20$ $0.13 \leq 0.20$ $0.19 \leq 2.00$ $0.19 \leq 2.00$ $0.19 \leq 2.00$ $0.19 \leq 2.00$ $0.17 \leq 1.00$ $0.21 \leq 0.30$ $0.06 \leq 2.00$ $0.03 \leq 0.15$ $0.03 = 0.15$</td><td>Herence Pepulation Rani ($\mu g/mg$ creatinine) 0 10 20 30 40 50 60 $0.15 \leq 0.30$ $0.08 \leq 0.20$ 4.31 $5.50 - 8.00$ (L) 10 20 30 40 50 60 $0.19 \leq 2.00$ 2.00 2.00 $2.3.8$ $40.0 - 175.0$ (L) 10 20 30 40 50 60 $0.17 \leq 1.00$ $2.19 \leq 7.20$ $0.21 \leq 0.30$ $0.06 \leq 2.00$ $0.03 \leq 0.15$ 10 10</td><td>Presente Range Population Ranking $(\mug/mg creatinine)$ 0 10 20 30 40 50 60 70 $0.15 \leq 0.30$ 0.20 4.31 $5.50 \cdot 8.00$ (L) 10 20 30 40 50 60 70 $0.19 \leq 2.00$ 2.00 2.38 $40.0 \cdot 175.0$ (L) 10 10 20 30 40 50 70 $0.17 \leq 2.00$ 2.00 2.19 7.20 10 10</td></t<> <td>Treference Result Range Population Ranking $(\mu g/mg \ creatinine)$ 0 10 20 30 40 50 60 70 80 0.15 ≤ 0.30 (L) </td> <td>Treterence Result Range Population Ranking (g/mg creatinine) 0 10 20 30 40 50 60 70 80 90 $0.15 \leq 0.30$ $0.08 \leq 0.20$ 4.31 5.50 8.00 (L) $0.19 \leq 2.00$ $0.19 \leq 2.00$ $0.19 \leq 2.00$ $0.17 \leq 1.00$ $0.17 \leq 1.00$ $0.17 \leq 0.30$ $0.15 \leq 2.00$ $0.06 \leq 2.00$ $0.15 \leq 0.15$ $0.15 \leq 0.15$</td>	Teterence Result Range Population $(\mu g/mg creatinine)$ 0 10 20 30 40 50 $0.15 \leq 0.30$ $0.08 \leq 0.20$ $0.13 \leq 0.20$ $0.13 \leq 0.20$ $0.19 \leq 2.00$ $0.19 \leq 2.00$ $0.19 \leq 2.00$ $0.19 \leq 2.00$ $0.17 \leq 1.00$ $0.21 \leq 0.30$ $0.06 \leq 2.00$ $0.03 \leq 0.15$ $0.03 = 0.15$	Herence Pepulation Rani ($\mu g/mg$ creatinine) 0 10 20 30 40 50 60 $0.15 \leq 0.30$ $0.08 \leq 0.20$ 4.31 $5.50 - 8.00$ (L) 10 20 30 40 50 60 $0.19 \leq 2.00$ 2.00 2.00 $2.3.8$ $40.0 - 175.0$ (L) 10 20 30 40 50 60 $0.17 \leq 1.00$ $2.19 \leq 7.20$ $0.21 \leq 0.30$ $0.06 \leq 2.00$ $0.03 \leq 0.15$ 10	Presente Range Population Ranking $(\mug/mg creatinine)$ 0 10 20 30 40 50 60 70 $0.15 \leq 0.30$ 0.20 4.31 $5.50 \cdot 8.00$ (L) 10 20 30 40 50 60 70 $0.19 \leq 2.00$ 2.00 2.38 $40.0 \cdot 175.0$ (L) 10 10 20 30 40 50 70 $0.17 \leq 2.00$ 2.00 2.19 7.20 10	Treference Result Range Population Ranking $(\mu g/mg \ creatinine)$ 0 10 20 30 40 50 60 70 80 0.15 ≤ 0.30 (L)	Treterence Result Range Population Ranking (g/mg creatinine) 0 10 20 30 40 50 60 70 80 90 $0.15 \leq 0.30$ $0.08 \leq 0.20$ 4.31 5.50 8.00 (L) $0.19 \leq 2.00$ $0.19 \leq 2.00$ $0.19 \leq 2.00$ $0.17 \leq 1.00$ $0.17 \leq 1.00$ $0.17 \leq 0.30$ $0.15 \leq 2.00$ $0.06 \leq 2.00$ $0.15 \leq 0.15$				

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13500 Linden Ave North Seattle, WA 98133 USA	Tel: (206) 365-	1256 Fax: (206)	363-8790) v	www.u	usbio	tek.co	m						
Physician:			Se	x: F	F				С	olle	cted:	03/	26/2	012
Patient:			Ag	e: 4	40				F	lece	ived:	04/	02/2	012
Accession #:		+D (Co	mpi	etea:	04/	10/2	012
	Result	*Reference Bange					Por	nulat	lion	Ranl	rina			
	(µg/dg crea	tinine)		0	10	20	30	40	50	60		80	90	99
Xylene Exposure		·												
3-Methylbiopurate	0.35	< 2 70												
2-Methylhippurate	1.41	≤ 2.80												
Toluene Exposure														
Hippurate (µg/mg creatinine)	23.8	≤ 175.0												
Benzoate (µg/mg creatinine)	0.19													
Benzoate is metabolized to Hippurate. Elevations may ca	use elevated Hippu	rate independent of Tol	uene.											
Benzene Exposure														
t t-Muconic acid	0.06	< 0.40												
	0.00	_ 0.40												
Trimethylbenzene Exposure														
3,4-Dimethylhippurate	0.05	\leq 0.40												
Styrene Exposure														
Mandelate	0.76	< 1.40												
Phenylglyoxylate	1.27	\leq^{-} 2.00]								
Mandelate + Phenylglyoxylate	2.03	\leq 3.40												
Phthalate Exposure														
Mana athud Dhibalais	0.96	< 1.00												
Monoeinyi Phinalale Phthalate	0.00	≤ 4.00 < 1.00		屵						_				
Quinolinate (µg/mg creatinine)	35.5	<u> </u>]				
Paraben Exposure														
Para-Hydroxybenzoate (µg/mg creatinine)	0.17	\leq 1.00												
									MEAI	N				

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