

Cellular Energy & Mitochondrial Metabolites

Carbohydrate Metabolism Reference Range

Lactic Acid	0.2					1.9-19.8
Pyruvic Acid	8					7-32
β -OH-Butyric Acid (BHBA)	0.1					\leq 2.8

Energy Metabolism

Citric Acid	65					40-520
Cis-Aconitic Acid	22					10-36
Isocitric Acid	38					22-65
α -Ketoglutaric Acid (AKG)	14					4-52
Succinic Acid	1.0					0.4-4.6
Malic Acid	0.0					\leq 3.0
β -OH- β -Methylglutaric Acid (HMG)	4					\leq 15

Fatty Acid Metabolism

Adipic Acid	0.4					\leq 2.8
Suberic Acid	0.8					\leq 2.1