



## Center for Inherited Disorders of Energy Metabolism

University Hospitals Case Medical Center, WEARN Room 649 • 11100 Euclid Avenue • Cleveland, Ohio 44106  
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 Federal Tax ID 34-1720429 • NPI 1578706438 • CLIA ID # 36D0680824, 36D0925804

**Test and Price List** (Prices effective: September 5, 2011)

ASSAY TYPE	Sample Type(s)	CPT Code (s)	Amount required	Price
<b>Amino acids (AA)</b>	Plasma	82139	200 µl	\$ 355
<b>Acylcarnitine Profile</b> (Quantitative; includes Total and Free)	Plasma	82379, 82017	250 µl	\$ 180
	Tissue (Muscle, Heart, Liver)	82379, 82017	20 mg	\$ 220
	Urine	82379, 82017	350 µl	\$ 180
	Plasma	82379	150 µl	\$ 80
<b>Carnitine Screening</b> (Total and Free)	Tissue (Muscle, Heart, Liver)	82379	20 mg	\$ 120
	Urine	82379	350 µl	\$ 80
	Plasma, Urine	82379, 82017		\$ 150
<b>Carnitine Upgrade</b> (Total and Free to Acylcarnitine Profile)	Tissue (Muscle, Heart, Liver)	82379, 82017		\$ 180
	Skeletal Muscle	82658x2, 84157, 82657	100 mg	\$ 250
<b>Carnitine Acetyltransferase</b>	Skin Fibroblasts	82658x2, 84157, 82657, 88233, 88240	2 T25	\$ 600
	Skin Fibroblasts	82658x6, 84157, 82657, 88233, 88240	2 T25	\$1550
<b>Carnitine Acylcarnitine Translocase*</b> - includes carnitine acetyltransferase, PDC also required	Tissue (Muscle, Heart, Liver)	82658x2, 84157, 82657	100 mg	\$ 450
<b>Carnitine Palmitoyltransferases I&amp;II (CPT)</b>	ACD Blood for Lymphocytes	82658x2, 84157, 82657	see below	\$ 570
	Skin Fibroblasts	82658x2, 84157, 82657, 88233, 88240	2 T25	\$ 850
	Muscle, Heart	82657x8, 84311x8, 84157	100 mg	\$ 800
<b>Electron Transport Chain (ETC)</b>	Liver	82657x7, 84311x7, 84157	100 mg	\$ 700
	Skin Fibroblasts	82657x5, 84311x5, 84157, 88233, 88240	2 T25	\$ 1100
	Tissue (Muscle, Heart, Liver)	82657x8, 84311x8, 84157	100 mg	\$ 450
<b>Fatty Acid Oxidation Enzymes (FAO)</b> - Acyl-CoA Dehydrogenases (Short-, Medium-, and Long Chain)	Skin Fibroblasts	82657x8, 84311x8, 84157, 88233, 88240	2 T25	\$1200
	Tissue (Muscle, Heart, Liver)	82657x4, 84311x4, 84157	100 mg	\$ 400
<b>Fatty Acid Oxidation Enzymes (FAO)</b> - Short Chain: (3-OH Acyl-CoA dehydrogenase)	Skin Fibroblasts	82657x4, 84311x4, 84157, 88233, 88240	2 T25	\$ 800
	Plasma	82725	500 µl	\$ 120
<b>Free Fatty Acids (FFA)</b>	Tissue (Muscle, Heart, Liver)	82657, 84311, 84157	100 mg	\$ 300
	Skin Fibroblasts	82657, 84157, 84311, 88233, 88240	2 T25	\$ 650
	Plasma	82010	200 µl	\$ 75
<b>Fumarase</b>	Plasma	82010	200 µl	\$ 75



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ASSAY TYPE	Sample Type(s)	CPT Code (s)	Amount required	Price
<b>Ketoglutarate Dehydrogenase Complex (KDC)</b>	Tissue (Muscle, Heart, Liver)	82658, 82657, 84157	50 mg	\$ 350
	ACD Blood for Lymphocytes	82658, 82657, 84157	see below	\$ 470
	Skin Fibroblasts	82658, 82657, 84157, 88233, 88240	2 T25	\$ 700
<b>Lactate and Pyruvate (L/P)</b>	Deproteinized blood or CSF	83605, 84210	500 µl	\$ 75
<b>Methylcrotonyl-CoA Carboxylase (MCC) &amp; (PC)</b>	Liver	82658x2, 82657, 84157	50 mg	\$ 550
	Skin Fibroblasts	82658x2, 82657, 84157, 88233, 88240	2 T25	\$ 900
<b>Mycoplasma Testing<sup>2</sup></b>	Skin Fibroblasts	87109	1 T25	\$ 120
<b>Organic Acids (OA)</b> , Semi-quantitative	Urine	83918, 82570	1 ml	\$ 195
<b>Oxidative Phosphorylation</b>	<b>Skin Fibroblasts</b>	<b>82657x20, 84157, 88233, 88240</b>	<b>3 T25</b>	<b>\$2400</b>
<b>Propionyl CoA Carboxylase (PCC) &amp; (PC)</b>	Liver	82658x2, 82657, 84157	50 mg	\$ 550
	Skin Fibroblasts	82658x2, 82657, 84157, 88233, 88240	2 T25	\$ 900
<b>Phosphoenolpyruvate Carboxykinase (PEPCK)</b>	Liver	82658, 82657, 84157	50 mg	\$ 350
	Skin Fibroblasts	82658, 82657, 84157, 88233, 88240	2 T25	\$ 700
<b>Pyruvate Carboxylase (PC)</b>	Liver	82658, 82657, 84157	50 mg	\$ 350
	Skin Fibroblasts	82658, 82657, 84157, 88233, 88240	2 T25	\$ 700
<b>PC and PEPCK, ordered at same time</b>	Liver	82658x2, 82657, 84157	50 mg	\$ 550
	Skin Fibroblasts	82658x2, 82657, 84157, 88233, 88240	2 T25	\$ 900
<b>Pyruvate Dehydrogenase Complex (PDC)</b>	Tissue (Muscle, Heart, Liver)	82658x2, 82657, 84157	50 mg	\$ 600
	ACD Blood for Lymphocytes	82658x2, 82657, 84157	see below	\$ 720
	Skin Fibroblasts	82658x2, 82657, 84157, 88233, 88240	2 T25	\$ 950

### SHIPPING and SAMPLE INSTRUCTIONS

#### Skin fibroblasts:

- 1) Ship only on dates reserved in advance. Please call at least two weeks before you would like to ship. Ship at room temperature in non-vented flasks with sealed caps and tape/parafilm shut..
- 3) All cells received should be confirmed mycoplasma free. CIDEM will perform mycoplasma testing if test results do not accompany shipment.
- 4) Punch biopsies are accepted for culture. Clean skin with betadine, remove betadine with alcohol. Place a 3-4mm punch or incision biopsy in sterile HBSS or saline.

#### Blood for lymphocytes:

- 1) Ship only on dates reserved in advance. Please call at least two weeks before you would like to ship. Ship at room temperature.
- 2) Collect blood using sterile technique in ACD tubes. Volumes needed are: 5ml < 6 months old, 10ml > 6 months and < 6 years, 20ml > 6years. Include 20ml of control blood from unrelated adult.

#### Tissue, plasma, urine:

- 1) Send on dry ice.

**CIDEM is open Monday through Friday, 8:30am – 5:00pm; closed weekend and holidays. Please ship samples Monday thru Wednesday.**