

Genetics and Genomics Biochemical Genetics Requisition

For detailed testing information, refer to **APL Genetics & Genomics Webpage** (<http://ahsweb.ca/lab/if-lab-genetics-and-genomics>) and **APL Test Directory** (<http://ahsweb.ca/lab/apl-td-lab-test-directory>)

Scanning Label or Accession # (lab only)

Patient	PHN	Expiry: _____	Date of Birth (dd-Mon-yyyy)		
	Legal Last Name		Legal First Name		Middle Name
	Alternate Identifier	Preferred Name	<input type="checkbox"/> Male <input type="checkbox"/> Non-binary	<input type="checkbox"/> Female <input type="checkbox"/> Prefer not to disclose	Phone
	Address		City/Town	Prov	Postal Code
Provider(s)	Authorizing Provider Name (last, first, middle)		Copy to Name (last, first, middle)		Copy to Name (last, first, middle)
	Address		Phone	Address	Address
	CC Provider ID	CC Submitter ID	Legacy ID	Phone	Phone
	Clinic Name			Clinic Name	Clinic Name
Collection	Date (dd-Mon-yyyy)	Time (24 hr)	Location	Collector ID	
	Hours Fasted	Urine Collection <input type="checkbox"/> Random <input type="checkbox"/> 24 hour		Total 24-hour Volume	

Specimen Requirements

Legend: **BS** dried blood spot, **CSF** cerebrospinal fluid, **P** sodium/lithium heparin non-PST plasma, **S** non-SST serum, **U** random urine (unless otherwise indicated), **WB** whole blood in test-specific non-separator tube

Comment for special specimen requirements or patient preparation

* test requires minimum 4-hour fast, or just prior to next feed in infants (unless requested by physician; **specify**)

¶ preferred specimen type for test

† must notify Lab (403-955-7380) prior to collection (preferably 24 hours)

‡ a concurrently collected plasma is required

Section 1. Clinical Information

Provide all relevant clinical information (e.g., key clinical features, family history, suspected/known diagnoses, medications, diets or therapies). This information will be used to ensure accurate test result interpretation.

NOTE: failure to provide sufficient justification for specialty testing may result in test cancellation.

Section 2. Frontline Investigations

See Section 3 (on second page) for additional testing available

Test	BS	CSF	P	S	U	WB	Comment
acylcarnitine profile*			<input type="checkbox"/> ¶	<input type="checkbox"/>			
amino acids* (OR nonfasted for monitoring; specify)			<input type="checkbox"/>				
β-hydroxybutyrate (nonfasted OR >8hr fasted; specify)			<input type="checkbox"/>	<input type="checkbox"/>			
carnitine, total and free*			<input type="checkbox"/> ¶	<input type="checkbox"/>			
cystinuria/homocystinuria screen					<input type="checkbox"/>		Random or 24 Hour
glycosaminoglycan (mucopolysaccharide) screen					<input type="checkbox"/>		
organic acids					<input type="checkbox"/>		
purine & pyrimidine profile					<input type="checkbox"/>		
sugar screen (reducing substances)					<input type="checkbox"/>		
sulfite†					<input type="checkbox"/>		Must be received within 1 hour
very long chain and branched chain fatty acids*			<input type="checkbox"/> ¶	<input type="checkbox"/>			Avoid peanuts 24 hrs prior

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Section 3A. Specialty Analytes/Investigations		Clinical justification required (see Section 1)						
Test	BS	CSF	P	S	U	WB	Comment	
3-methylglutaconic and 3-methylglutaric acids			<input type="checkbox"/> *	<input type="checkbox"/> *	<input type="checkbox"/>			
7-dehydrocholesterol*			<input type="checkbox"/> †	<input type="checkbox"/>				
amino acids (additional specimen types)	<input type="checkbox"/> ‡					<input type="checkbox"/>	Random or 24 hour	
carnitine, total and free (additional specimen types)						<input type="checkbox"/> ‡		
galactose-1-phosphate, quantitative						<input type="checkbox"/>	on ice, do not centrifuge	
half cystine quantitation†						<input type="checkbox"/>	immediate processing required	
homocysteine, total			<input type="checkbox"/> †*	<input type="checkbox"/> *	<input type="checkbox"/>			
methylmalonic acid			<input type="checkbox"/> †*	<input type="checkbox"/> *	<input type="checkbox"/>			
mucopolysaccharidosis (MPS) investigation						<input type="checkbox"/>		
N-acetylaspartic acid						<input type="checkbox"/>		
orotic acid						<input type="checkbox"/>		
phenylalanine & tyrosine monitoring			<input type="checkbox"/>					
pipecolic acid		<input type="checkbox"/>	<input type="checkbox"/> *	<input type="checkbox"/> *	<input type="checkbox"/>			
pyruvic acid†		<input type="checkbox"/>				<input type="checkbox"/>	immediate processing required	
quantitative total GAGs (monitoring)						<input type="checkbox"/>		
S-adenosylmethionine & S-adenosylhomocysteine†			<input type="checkbox"/> *				immediate processing required	
sialic acid, total and free						<input type="checkbox"/>		
sugar chromatography						<input type="checkbox"/>		
Section 3B. Specialty Enzymes		Clinical justification required (see Section 1)						
Test	BS	CSF	P	S	U	WB	Comment	
adenine phosphoribosyltransferase	<input type="checkbox"/>					<input type="checkbox"/>	WB on ice, do not centrifuge	
adenosine deaminase & purine nucleoside phosphorylase						<input type="checkbox"/>	on ice, do not centrifuge	
α-fucosidase						<input type="checkbox"/>	room temperature, do not centrifuge	
α-galactosidase			<input type="checkbox"/>					
α-glucosidase						<input type="checkbox"/>	from T-lymphocyte culture	
α-mannosidase						<input type="checkbox"/>	room temperature, do not centrifuge	
arylsulfatase A						<input type="checkbox"/>	room temperature, do not centrifuge	
β-galactosidase						<input type="checkbox"/>	from T-lymphocyte culture	
β-glucosidase						<input type="checkbox"/>	from T-lymphocyte culture	
β-mannosidase						<input type="checkbox"/>	room temperature, do not centrifuge	
galactocerebrosidase						<input type="checkbox"/>	from T-lymphocyte culture	
galactokinase						<input type="checkbox"/>	on ice, do not centrifuge	
galactose-1-phosphate uridylyltransferase						<input type="checkbox"/>	on ice, do not centrifuge	
hexosaminidase				<input type="checkbox"/>				
hypoxanthine guanine phosphoribosyltransferase	<input type="checkbox"/>					<input type="checkbox"/>	WB on ice, do not centrifuge	
I-cell disease			<input type="checkbox"/> AND <input type="checkbox"/>					
mucopolysaccharidosis enzymes† (specify)	<input type="checkbox"/>					<input type="checkbox"/>	WB room temp, do not centrifuge	
sphingomyelinase						<input type="checkbox"/>	room temperature, do not centrifuge	
Tay Sachs CARRIER testing†				<input type="checkbox"/>	AND	<input type="checkbox"/>	WB at room temperature, do not centrifuge WB	

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Section 3C. Tissue Culture Clinical justification required (see Section 1; performed by Cytogenetics Lab)

Test	BS	CSF	P	S	U	WB	Comment
fibroblast culture							<input type="checkbox"/> skin punch biopsy
T-lymphocyte culture (one or more enzymes)							<input type="checkbox"/> room temperature, do not centrifuge

Section 4. Referral Tests

Specify full test/enzyme name, preferred referral lab and specimen requirements (including minimum volume).
