



DATE:	2021 March 22
TO:	All Zones
FROM:	Genetics and Genomics
RE:	Discontinuation of In-House Testing: Alpha-Mannosidase, Beta-Mannosidase, and Alpha-Fucosidase

PLEASE POST OR DISTRIBUTE AS WIDELY AS APPROPRIATE

Key Message:

- The Biochemical Genetics South laboratory (BGL South), located at the Alberta Children's Hospital in Calgary, has discontinued in-house testing of alpha-mannosidase, beta-mannosidase and alpha-fucosidase enzyme activity.
- Effective immediately, testing for the province will be referred to the Metabolic Diseases Laboratory at The Hospital for Sick Children (Sick Kids) Toronto.
- Referring this testing out of province has resulted in changes to:
 - 1) **Specimen type required** from plasma to leukocytes.
 - 2) **Specimen handling:** A leukocyte preparation will need to be performed by the most appropriate Genetics and Genomics BGL on the specimen prior to send out. Therefore, upon collection, samples must arrive at the appropriate BGL no later than **12 noon** on the **same day** of collection.

Why this is important:

- All collection sites need to be aware that the **specimen type** and **sample handling** requirements for this test have changed, in order to:
 - Prevent test cancellation due to inappropriate specimen handling
 - Avoid unnecessary repeat collections, potentially leading to patient harm
 - Ensure that viable specimens can be referred out for testing

Action Required:

- All collection sites should review the Alberta Precision Laboratories Test Directory for alpha-mannosidase, beta-mannosidase, and alpha-fucosidase.
 - [Alpha-Fucosidase, Leukocyte \(Referred Test\) \(Synonym: Alpha-Fucosidase Deficiency, Fucosidosis\)](#)
 - [Alpha-Mannosidase, Leukocyte \(Referred Test\) \(Synonym: Alpha-Mannosidase Deficiency, Alpha-Mannosidosis\)](#)
 - [Beta-Mannosidase, Leukocyte \(Referred Test\) \(Synonym: Beta-Mannosidase Deficiency, Beta-Mannosidosis\)](#)

Inquiries and feedback may be directed to:

- Newborn Metabolic Screening and Biochemical Genetics North Laboratory in Edmonton: 1-780-407-8820
- Biochemical Genetics South laboratory in Calgary: 1-403-955-7380

This bulletin has been reviewed and approved by:

- Dr. Dennis Bulman, Medical/Scientific Director, Genetics & Genomics, APL
- Dr. Carolyn O'Hara, Chief Medical Laboratory Officer (Interim), APL