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Prepared for MycoMedica

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LF

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**K-YBGL with  
MycoMedica  
samples.**

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## K-YBGL with MycoMedica samples.

### Purpose

The purpose of this assay is to test beta and alpha- glucan content in customer samples following the method as described in K-YBGL 08/23.

### Description of Neogen Products used.

Code	Product Name	Lot No. / Serial No.
K-YBGL	$\beta$ -Glucan Assay Kit (Yeast and Mushroom)	240723-01

### Description of Customer Samples

**Table 1**

Samples Information			
Name	Quantity (g)	Batch	Date of Expiry
Organic Chaga Ext. PRO	30 g	YZKE08240113	21-01-2028

### Results

**Table 2**

Determination of alpha and beta glucan using K-YBGL 08/23				
Sample		Results of samples in duplicate		Average of results
Sample Results	Total Glucan	48.60	46.36	47.48
	Alpha-Glucan	5.25	5.34	5.30
	Beta-Glucan	43.34	41.01	42.18
Control Yeast $\beta$ -glucan 47% * L: 230501B	Total Glucan	50.13	49.86	49.99
	Alpha-Glucan	1.02	1.01	1.01
	Beta-Glucan	49.11	48.85	48.98

\* Control Yeast  $\beta$ -glucan 47% was tested using the half amount of it to apply the same conditions as the sample.

Samples were applied to the assay procedure in duplicate with duplicate determinations.

### Discussion

Sample Organic Chaga ext. PRO presents a strong brownish color during alpha-glucan determination, following the assay protocol. This intense color interferes with accurate testing by affecting the GOPOD determination. To address this issue, we used half the sample amount for both Total and Alpha glucan determinations to reduce the intensity of the color (**Picture 1**).

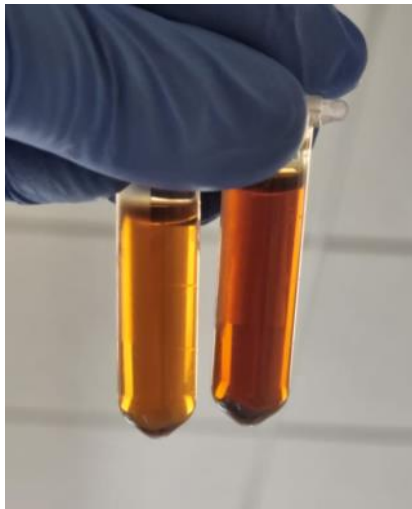
## K-YBGL with MycoMedica samples.

### Conclusion

The result for the control Yeast  $\beta$ -glucan sample is in the acceptable range ( $\pm$  5%) indicating that the procedure and reagents worked to specification.

The results indicate that the K-YBGL assay procedure was suitable and reliable for the batch of samples tested.

### Appendix



**Picture 1:** The left Eppendorf tube contains Organic Chaga Ext. PRO, using half the sample amount to proceed with the alpha glucan determination. The tube on the right is for alpha-glucan determination, using the full sample amount as detailed in the protocol.

#### **Sources of Variance**

*Upon reviewing the data presented in this report, it is important to consider all sources of variance when evaluating the trueness of any laboratory method.*

- *Sample Variance-How homogeneous is the sample being analyzed and how representative is that sample of the larger portion of material that this sample is associated with*
- *Equipment Variance-Are the balances, pipettors, and other laboratory instruments operating within their expected performance parameters and have they been recently calibrated*
  - *Technician Variance- Has the technician been trained and are they using best laboratory practices when performing the analysis*
- *Assay Variance-What is the expected variance of the assay based on historical performance and validation data made available by the method provider*

*These major sources of variance compounded demonstrate the total variance in the data generated by any method.*