Microbe Inotech Laboratories, Inc.
Summary Report of Analysis
[MILB – A1551]

Perfect Supplements
PO Box 60070,
Florence, MA 01062
Phone: 866-802-3860

Description and Chain of Custody Record Information:

- Received one (1) desiccated liver supplement sample for histamine.
- MiL, Inc. REPORT & Invoice Number: MILB-A1551
- Purchase Order Number: AR Form.

Histamine Processing:

Microbe Inotech Laboratories, Inc. utilizes the Veratox® for Histamine test system produced by Neogen Corporation for the quantitative analysis of histamine in scombroid species. The test is a competitive direct ELISA that provides exact concentrations in parts per million (ppm). Histamine is extracted from a sample using a quick water extraction process. Free histamine in the sample and controls competes with enzyme-labeled histamine (conjugate) for the antibody-binding sites. After a wash step, substrate reacts with the bound enzyme conjugate to produce blue color. A microwell reader is used to yield optical densities. Control optical densities are used to form a standard curve, and sample optical densities are plotted against the curve to calculate the exact concentration of histamine. The sensitivity of this testing methodology ranges from the lower limit of detection of 2 ppm with a range of quantitative analysis of 2.5 ppm – 50 ppm.

Histamine Results:

Histamine Levels in part per million of sample (ppm)		
Sample Name	**Test type**	**Results in ppm**
Desiccated Liver Supplement**	Histamine toxin	**33.07 ppm**

Limit of detection = 2.00 ppm

Disclaimer: the MiL, Inc. is not a human clinical diagnostic laboratory and makes no warranty to the fitness of this data for such purposes.

** Extraction method not validated for this matrix

Interpretation of Results:

No uniform guidelines can be used to interpret the result of bacteriological testing of products regarding microbial flora. There are recommended limits for Histamine toxins put forth by the FDA. The FDA has determined that **the minimum action level of 50.0 ppm** is to be used to determine if fish are safe for consumption. Each product must be evaluated on the basis of its own characteristics, and considerations should be made for the use, storage, and handling of the sample before testing.

Thank you from the staff on project:

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Microbiologist 1

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