

Test Report

Report No. : 63-C691-4527-1
Customer : PICO
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Test Method : Please refer to next page(s).
Test Result : Please refer to next page(s).

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Test Result

Report No. : 63-C691-4527
 Sample Name : Description in the table Sample No. : Description in the table
 Sample Description : Enzyme product
 Sample Identification : Powder
 Test Method : Enzyme activity testing: Amylase

Quantitative assay for enzyme activity		
Sample Name	Sample No.	Enzyme activity
		Unit per gram ($\mu\text{mole/g} \times \text{min}$)
1. PICO TAB	2000286	52,930.76

Determination of Amylase activity

Reference :

NSTDA Standard Methods (In-house method no. NCTC-ENZ-01: Determination of Amylase activity)

Enzyme assay conditions :

Assay at pH 5.5 and temperature 50 °C using Starch soluble as substrate.

Unit definition :

One unit of Amylase is the amount of enzyme required to liberate 1 μmole of Glucose from Soluble starch in one minute.

Test Result

Report No. : 63-C691-4527
 Sample Name : Description in the table Sample No. : Description in the table
 Sample Description : Enzyme product
 Sample Identification : Powder
 Test Method : Enzyme activity testing: Beta-glucanase

Quantitative assay for enzyme activity		
Sample Name	Sample No.	Enzyme activity
		Unit per gram ($\mu\text{mole/g} \times \text{min}$)
1. PICO TAB	2000286	2,188.55

Determination of Beta-glucanase activity

Reference :

NSTDA Standard Methods (In-house method no. NCTC-ENZ-3: Determination of Beta-glucanase activity)

Enzyme assay conditions :

Assay at pH 5.5 and temperature 50 °C using Beta-glucan from barley (P-BGBM) as substrate.

Unit definition :

One unit of Beta-glucanase is the amount of enzyme required to liberate 1 μmole of Glucose from using Beta-glucan from barley in one minute.

Test Result

Report No. : 63-C691-4527
 Sample Name : Description in the table Sample No. : Description in the table
 Sample Description : Enzyme product
 Sample Identification : Powder
 Test Method : Enzyme activity testing: Beta-glucosidase

Quantitative assay for enzyme activity		
Sample Name	Sample No.	Enzyme activity
		Unit per gram ($\mu\text{mole/g} \times \text{min}$)
1. PICO TAB	2000286	77.52

Determination of Beta-glucosidase activity

Reference :

NSTDA Standard Methods (In-house method no. NCTC-ENZ-4: Determination of Beta-glucosidase activity)

Enzyme assay conditions :

Assay at pH 5.5 and temperature 50 °C using using p-Nitrophenyl- β -D-glucopyranoside as substrate.

Unit definition :

One unit of Beta-glucosidase is the amount of enzyme required to liberate 1 μmole of p-Nitrophenol from p-Nitrophenyl- β -D-glucopyranoside in one minute.

Test Result

Report No. : 63-C691-4527
 Sample Name : Description in the table Sample No. : Description in the table
 Sample Description : Enzyme product
 Sample Identification : Powder
 Test Method : Enzyme activity testing: Cellulase

Quantitative assay for enzyme activity		
Sample Name	Sample No.	Enzyme activity
		Unit per gram ($\mu\text{mole/g} \times \text{min}$)
1. PICO TAB	2000286	611.08

Determination of Cellulase activity

Reference :

NSTDA Standard Methods (In-house method no. NCTC-ENZ-06: Determination of Cellulase activity)

Enzyme assay conditions :

Assay at pH 5.5 and temperature 50 °C using Carboxymethylcellulose sodium salt as substrate.

Unit definition :

One unit of Cellulase is the amount of enzyme required to liberate 1 μmole of Glucose from Carboxymethylcellulose sodium salt in one minute.

Test Result

Report No. : 63-C691-4527
 Sample Name : Description in the table Sample No. : Description in the table
 Sample Description : Enzyme product
 Sample Identification : Powder
 Test Method : Enzyme activity testing: Dextranase

Quantitative assay for enzyme activity		
Sample Name	Sample No.	Enzyme activity
		Unit per gram ($\mu\text{mole/g} \times \text{min}$)
1. PICO TAB	2000286	No enzyme activity

Determination of Dextranase activity

Reference :

NSTDA Standard Methods (In-house method no. NCTC-ENZ-08: Determination of Dextranase activity)

Enzyme assay conditions :

Assay at pH 5.5 and temperature 50 °C using Dextran as substrate.

Unit definition :

One unit of Dextranase is the amount of enzyme required to liberate 1 μmole of Maltose from Dextran in one minute.

Test Result

Report No. : 63-C691-4527
 Sample Name : Description in the table Sample No. : Description in the table
 Sample Description : Enzyme product
 Sample Identification : Liquid
 Test Method : Enzyme activity testing: Lipase

Quantitative assay for enzyme activity		
Sample Name	Sample No.	Enzyme activity
		Unit per gram ($\mu\text{mole/g} \times \text{min}$)
1. PICO TAB	2000286	No Enzyme Activity

Determination of Lipase activity

Reference :

NSTDA Standard Methods (In-house method no. NCTC-ENZ-11: Determination of Lipase activity)

Enzyme assay conditions :

Assay at pH 8.0 and temperature 37 °C using p-Nitrophenyl palmitate (p-NPP) as substrate.

Unit definition :

One unit of Lipase is the amount of enzyme required to liberate 1 μmole of p-Nitrophenol from p-Nitrophenyl palmitate in one minute.

Test Result

Report No. : 63-C691-4527
 Sample Name : Description in the table Sample No. : Description in the table
 Sample Description : Enzyme product
 Sample Identification : Powder
 Test Method : Enzyme activity testing: Mannanase

Quantitative assay for enzyme activity		
Sample Name	Sample No.	Enzyme activity
		Unit per gram ($\mu\text{mole/g} \times \text{min}$)
1. PICO TAB	2000286	104.53

Determination of Mannanase activity

References:

NSTDA Standard Methods (In-house method no. NCTC-ENZ-12: Determination of Mannanase activity)

Enzyme assay conditions:

Assay at pH 5.5 and temperature 50 °C using Locust bean gum as substrate.

Unit definition:

One unit of Mannanase is the amount of enzyme required to liberate 1 μmole of Mannose from Locust bean gum in one minute.

Test Result

Report No. : 63-C691-4527
 Sample Name : Description in the table Sample No. : Description in the table
 Sample Description : Enzyme product
 Sample Identification : Powder
 Test Method : Enzyme activity testing: Pectinase

Quantitative assay for enzyme activity		
Sample Name	Sample No.	Enzyme activity
		Unit per gram ($\mu\text{mole/g} \times \text{min}$)
1. PICO TAB	2000286	13.72

Determination of Pectinase activity

Reference :

NSTDA Standard Methods (In-house method no. NCTC-ENZ-13: Determination of Pectinase activity)

Enzyme assay conditions :

Assay at pH 5.5 and temperature 50 °C using Pectin from Citrus peel as substrate.

Unit definition :

One unit of Pectinase is the amount of enzyme required to liberate 1 μmole of Glucose from Pectin from Citrus peel in one minute.

Test Result

Report No. : 63-C691-4527
 Sample Name : Description in the table Sample No. : Description in the table
 Sample Description : Enzyme product
 Sample Identification : Powder
 Test Method : Enzyme activity testing: Phytase

Quantitative assay for enzyme activity		
Sample Name	Sample No.	Enzyme activity
		Unit per gram ($\mu\text{mole/g} \times \text{min}$)
1. PICO TAB	2000286	9,806.56

Determination of Phytase activity

Reference :

NSTDA Standard Methods (In-house method no. NCTC-ENZ-14: Determination of Phytase activity)

Enzyme assay conditions :

Assay at pH 5.5 and temperature 40 °C using Phytic acid as substrate.

Unit definition :

One unit of Phytase is the amount of enzyme required to liberate 1 μmole of Inorganic phosphate from Phytic acid in one minute.

Test Result

Report No. : 63-C691-4527
 Sample Name : Description in the table Sample No. : Description in the table
 Sample Description : Enzyme product
 Sample Identification : Powder
 Test Method : Enzyme activity testing: Protease

Quantitative assay for enzyme activity		
Sample Name	Sample No.	Enzyme activity
		Unit per gram ($\mu\text{mole/g} \times \text{min}$)
1. PICO TAB	2000286	8.25

Determination of Protease activity

Reference :

NSTDA Standard Methods (In-house method no. NCTC-ENZ-15: Determination of Protease activity)

Enzyme assay conditions :

Assay at pH 7.5 and temperature 37 °C using Casein from Bovine milk as substrate.

Unit definition :

One unit of Protease is the amount of enzyme required to liberate 1 μmole of Tyrosine from Casein Sodium salt (Bovine milk) in one minute.

Test Result

Report No. : 63-C691-4527
 Sample Name : Description in the table Sample No. : Description in the table
 Sample Description : Enzyme product
 Sample Identification : Powder
 Test Method : Enzyme activity testing: Xylanase

Quantitative assay for enzyme activity		
Sample Name	Sample No.	Enzyme activity
		Unit per gram ($\mu\text{mole/g} \times \text{min}$)
1. PICO TAB	2000286	23,207.30

Determination of Xylanase activity

Reference :

NSTDA Standard Methods (In-house method no. NCTC-ENZ-16: Determination of Xylanase activity)

Enzyme assay conditions :

Assay at pH 5.5 and temperature 50 °C using Xylan from Beechwood as substrate.

Unit definition :

One unit of Xylanase is the amount of enzyme required to liberate 1 μmole of Xylose from Xylan (Beechwood) in one minute.

Test Result

Report No. : 63-C691-4527
 Sample Name : Description in the table Sample No. : Description in the table
 Sample Description : Enzyme product
 Sample Identification : Powder
 Test Method : Enzyme activity testing: Alpha-Amylase

Quantitative assay for enzyme activity		
Sample Name	Sample No.	Enzyme activity
		DU/g
1. PICO TAB	2000286	5,529.10

Determination of Alpha-amylase activity

Reference :

NSTDA Standard Methods (In-house method no. NCTC-ENZ-17: Determination of Alpha-amylase activity).

Enzyme assay conditions :

Assay at pH 6.6 and temperature 70 °C using Starch soluble as substrate.

Unit definition :

One Alpha-amylase dextrinizing unit is defined as the quantity of Alpha -amylase that will dextrinize Soluble starch (Glycosidic bond) produce Disacchaide at the rate of 1 mg/min under the specified test condition.

Test Result

Report No. : 63-C691-4527
 Sample Name : Description in the table Sample No. : Description in the table
 Sample Description : Enzyme product
 Sample Identification : Powder
 Test Method : Enzyme activity testing: Glucoamylase

Quantitative assay for enzyme activity		
Sample Name	Sample No.	Enzyme activity
		Unit per gram ($\mu\text{mole/g} \times \text{min}$)
1. PICO TAB	2000286	0.84

Determination of Glucoamylase activity

Reference :

NSTDA Standard Methods (In-house method no. NCTC-ENZ-19: Determination of Glucoamylase activity)

Enzyme assay conditions :

Assay at pH 4.5 and temperature 50 °C using p-Nitrophenyl- α -D-Glucopyranoside as substrate.

Unit definition :

One unit of glucoamylase is the amount of enzyme required to liberate 1 μmole of p-Nitrophenol from p-Nitrophenyl- α -D-Glucopyranoside in one minute.

**** End of Report ****