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Datasheet for 200-103-235

Pyranose Oxidase Antibody Peroxidase Conjugated

Overview

Description:	Anti-Pyranose Oxidase (E. coli) (GOAT) Antibody Peroxidase Conjugated (BULK ORDER) - 200-103-235
Item No.:	200-103-235
Size:	20 mg
Reactivity:	Microbial
Host Species:	Goat

Product Details

Background:	Pyranose Oxidase catalyzes the oxidation of various aldopyranoses and disaccharides on carbon-2 to the corresponding 2-keto sugars concomitant with the reduction of oxygen to hydrogen peroxide. It plays an important role in lignin degradation of wood rot fungi by supplying the essential cosubstrate hydrogen peroxide for the ligninolytic peroxidases, lignin peroxidase, and manganese-dependent peroxidase. The preferred substrate is D-glucose which is converted to 2-dehydro-D-glucose. It acts also on D-xylose, together with D-glucose the major sugars derived from wood, on L-sorbose, D-galactose and 1,5-anhydroglucitol, a diagnostic marker of diabetes mellitus. This enzyme belongs to the family of oxidoreductases, specifically those acting on the CH-OH group of donor with oxygen as acceptor. This enzyme participates in pentose phosphate pathway. It employs one cofactor, FAD.
Synonyms:	goat anti-Pyranose Oxidase Antibody, HRP Conjugated goat anti-Pyranose Oxidase Antibody, P2Ox, Pyranose oxidase, PROD, POD, POx, Pyranose:oxygen 2-oxidoreductase, Glucose 2-oxidase, FAD-oxidoreductase
Host Species:	Goat
Conjugate:	Peroxidase (HRP)
Clonality:	Polyclonal
Format:	IgG

Target Details

Gene Name:	P2OX
Reactivity:	Microbial

Immunogen Type:	Native Protein
Immunogen:	Pyranose Oxidase [E.coli]
Purity/Specificity:	Pyranose Oxidase is an IgG fraction antibody purified from monospecific antiserum by a multi-step process which includes delipidation, salt fractionation and ion exchange chromatography followed by extensive dialysis against the buffer stated above. Assay by immunoelectrophoresis resulted in a single precipitin arc against anti-Peroxidase, anti-Goat Serum as well as purified and partially purified Pyranose Oxidase [E.coli]. Cross reactivity against Pyranose Oxidase from other sources is unknown.
Relevant Links:	• UniProtKB - P79076 • NCBI - Q5G234.1

Application Details

Application Note:	Anti-Pyranose Oxidase has been assayed against 1.0 ug of Pyranose Oxidase [E.coli] in a standard capture ELISA using ABTS (2,2'-azino-bis-[3-ethylbenthiazoline-6-sulfonic acid]) code # ABTS-100 as a substrate for 30 minutes at room temperature. A working dilution of 1:20,000 to 1:100,000 of the reconstitution concentration is suggested for this product.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
ELISA:	1:5,000 - 1:20,000
IP:	1:100
WB:	1:500 - 1:5,000

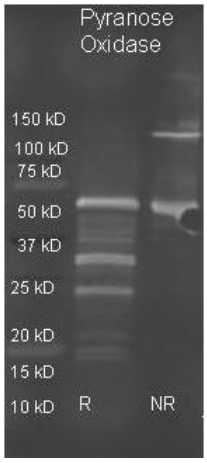
Formulation

Physical State:	Lyophilized
Concentration:	10.0 mg/mL by UV absorbance at 280 nm
Buffer:	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Preservative:	0.01% (w/v) Gentamicin Sulfate. Do NOT add Sodium Azide!
Stabilizer:	10 mg/mL Bovine Serum Albumin (BSA) - Immunoglobulin and Protease free
Reconstitution Volume:	2.0 mL
Reconstitution Buffer:	Restore with deionized water (or equivalent)

Shipping & Handling

Shipping Condition:	Ambient
Storage Condition:	Store vial at 4° C prior to restoration. For extended storage aliquot contents and freeze at -20° C or below. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.
Expiration:	Expiration date is one (1) year from date of receipt.

Images



Western Blot
Rockland Goat anti Pyranose Oxidase antibody (200-101-235 lot 8178) was used to detect pyranose oxidase under reducing (R) and non-reducing (NR) conditions. Reduced samples of purified target proteins contained 4% BME and were boiled for 5 minutes. Samples of ~1ug of protein per lane were run by SDS-PAGE. Protein was transferred to nitrocellulose and probed with 1:3000 dilution of primary antibody (ON 4 C in MB-070). Detection shown was using Dylight 488 conjugated Donkey anti goat (605-741-125 lot 21094 1:10K in TBS/MB-070 1 hr RT) . Images were collected using the BioRad VersaDoc System

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