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Anti-GLUCOSE OXIDASE (RABBIT) Antibody
Glucose Oxidase Antibody
Catalog # ASR4570

Specification

Anti-GLUCOSE OXIDASE (RABBIT) Antibody - Product Information

Host	**Rabbit**
Conjugate	**Unconjugated**
Target Species	**Aspergillus niger**
Reactivity	**Aspergillus niger**
Clonality	**Polyclonal**
Application	**WB, IHC, E, I, LCI**
Application Note	**Anti-Glucose Oxidase Antibody has been tested by ELISA and western blot and is suitable for IHC. Researchers should determine optimal titers for applications that are not stated below.**
Physical State	**Lyophilized**
Buffer	**0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2**
Immunogen	**Anti-Glucose Oxidase Antibody was produced by repeated immunizations with Aspergillus niger Glucose Oxidase protein.**
Reconstitution Volume	**100 µL**
Reconstitution Buffer	**Restore with deionized water (or equivalent)**
Preservative	**0.01% (w/v) Sodium Azide**

Anti-GLUCOSE OXIDASE (RABBIT) Antibody - Additional Information

Purity
Anti-Glucose 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-Rabbit Serum as well as purified and partially purified Glucose Oxidase [Aspergillus niger]. Cross reactivity against Glucose Oxidase from other tissues and species may occur but have not been specifically determined.

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.

Precautions Note
This product is for research use only and is not intended for therapeutic or diagnostic applications.

Anti-GLUCOSE OXIDASE (RABBIT) Antibody - Protein Information

Name gox {ECO:0000303|PubMed:2792372}

Function
Glucose oxidase catalyzes the oxidation of beta-D-glucose to D-glucono-delta-lactone and hydrogen peroxide in the presence of molecular oxygen. D-glucono-delta-lactone is sequentially hydrolyzed by lactonase to D-gluconic acid, and the resulting hydrogen peroxide is hydrolyzed by catalase to oxygen and water (PubMed:14188176, PubMed:14257628, PubMed:14299649, PubMed:15450808, PubMed:2076553, PubMed:2406261, PubMed:24283586, PubMed:28631058, PubMed:28939970, PubMed:34500289, PubMed:7826581, Ref.4, Ref.5). The activity shows high specificity to beta-D-glucose, with very low to no activity towards L- glucose, 2-deoxy-D-glucose, 3-deoxy-D-glucose, 4-deoxy-D-glucose, 5- deoxy-D-glucose, 6-deoxy-D-glucose, 3-O-methyl-D-glucose, 4-O-methyl-D- glucose, 6-O-methyl-D-glucose, 4,6-O-benzylidene-D-glucose, 5-thio-5- deoxy-D-glucose, D-mannose, D-allose, D-galactose, D-fructose, D- arabinose, D-xylose, trehalose, melibiose, L-mannomethylose, lactose, sucrose or 1,5-anhydro-D-glucitol (PubMed:14188176, PubMed:14257628, PubMed:24283586, Ref.5).

Cellular Location
Secreted. Secreted, cell wall Cytoplasm. Secreted, extracellular space, extracellular matrix. Note=The extracellular fluid contains 38% of the total activity with the remaining 62% being associated with the mycelia and distributed between the cell wall, cytoplasm and slime mucilage in the proportions of 34, 12 and 16%, respectively (PubMed:16133329). On progression from mid-exponential to stationary phase, the percentage of activity in the cytoplasm decreased 1.3-fold Decreasing cytoplasmic activity is accompanied by 1.3-fold increases in the cell envelope and slime mucilage, with a 1.3-fold decrease in the extracellular fluid (PubMed:17787009).

Anti-GLUCOSE OXIDASE (RABBIT) Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Anti-GLUCOSE OXIDASE (RABBIT) Antibody - Images

Anti-GLUCOSE OXIDASE (RABBIT) Antibody - Background

Anti-Glucose Oxidase detects glucose oxidase. Glucose oxidase enzyme (GOx) is an oxido-reductase that catalyzes the oxidation of glucose to hydrogen peroxide and

D-glucono-δ-lactone. In cells, it aids in breaking the sugar down into its metabolites. Glucose oxidase is widely used for the determination of free glucose in body fluids, in vegetal raw material, and in the food industry. It also has many applications in biotechnologies, typically enzyme assays for biochemistry including biosensors in nanotechnologies. Anti-Glucose Oxidase Antibody is ideal for investigators involved in Cell Signaling and Signal Transduction research.