

General Catalase Assay Kit | CAT assay kit

Catalase Microplate Assay Kit

CATALOG # AAA27850	REACTIVITY General	APPLICATIONS Functional Assay
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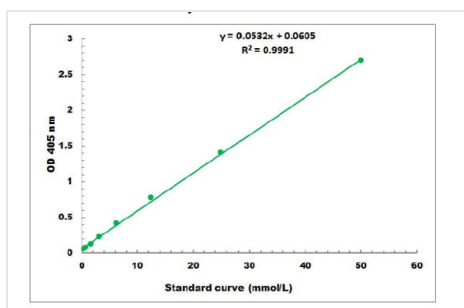
PRODUCT SYNONYMS

Catalase; Catalase Microplate Assay Kit; EC 1.11.1.6; CAT assay kit

PRODUCT SPECIFICATIONS

Reactivity	General
Sequence Length	527
Samples	Urine, Serum, Plasma, Tissue extracts, Cell lysate, Cell culture media and Other biological fluids Samples
Detection Range	0.5 mmol/L - 50 mmol/L
Applicable Applications for CAT assay kit	FA (Functional Assay)
Preparation and Storage	Shipped and store at 4 degree C for 6 months.

IMAGES



Standard Curve (Sample)

ADDITIONAL INFORMATION

Related Product Information for CAT assay kit

Background: Catalase is an antioxidant enzyme ubiquitously present in mammalian and non-mammalian aerobic cells containing a cytochrome system. It was initially isolated from ox liver and later from blood, bacterial, and plant sources. The enzyme contains 4 ferrihemoprotein groups per molecule. The enzyme has a molecular mass of 240 kDa. Catalase activity varies greatly between tissues. The activity is highest in the liver and kidney, and lowest in connective tissues. In eukaryotic cells the enzyme is concentrated in the subcellular organelles called peroxisomes (microbodies). Catalase catalyses the decomposition of hydrogen peroxide (H₂O₂) to water and oxygen. Hydrogen peroxide is formed in the eukaryotic cell as a by-product of various oxidase and superoxide dismutase reactions. Hydrogen peroxide is highly deleterious to the cell and its accumulation causes oxidation of cellular targets such as DNA, proteins, and lipids leading to mutagenesis and cell death. Removal of the H₂O₂ from the cell by catalase provides protection against oxidative damage to the cell. It's role in oxidative stress related diseases has been widely studied. The assay is initiated with the enzymatic hydrolysis of H₂O₂ by CAT. The reaction product can be react with the dry reagent, and measured at a colorimetric readout at 405 nm.

NCBI AND UNIPROT INFORMATION

NCBI GI #	4557014
NCBI GeneID	847
NCBI Accession #	NP_001743.1
NCBI GenBank Nucleotide #	NM_001752.3
Molecular Weight	59,756 Da
NCBI Official Full Name	catalase
NCBI Official Synonym Full Names	catalase
NCBI Official Symbol	CAT
NCBI Protein Information	catalase
UniProt Protein Name	Catalase
UniProt Gene Name	CAT
UniProt Entry Name	CATA_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/general-assay-kits/catalase/27850>