

## Catalase (CAT) Assay Kit | CAT assay kit

Catalase (CAT) Activity Assay Kit

CATALOG #  
**AAA31524**

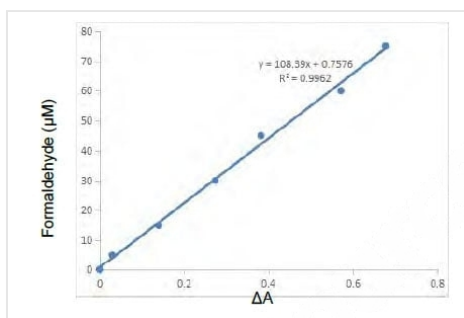
### PRODUCT SYNONYMS

Catalase (CAT); Catalase (CAT) Activity Assay Kit; CAT assay kit

### PRODUCT SPECIFICATIONS

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|-------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Sequence Length         | 527                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Samples                 | Serum, Plasma, Animal and Plant Tissues, Cells                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Application Notes       | Catalase Activity Assay Kit provides a simple and easy colorimetric assay for the study of catalase activity in a variety of biological samples such as cell and tissue lysates or biological fluids. This assay kit utilizes the peroxidatic function of catalase for measuring catalase activity, based on the reaction of catalase with methanol, with the presence of an optimal concentration of H <sub>2</sub> O <sub>2</sub> . The formaldehyde produced can be measured colorimetrically at OD 540 nm. Therefore, the catalase activity present in the sample is proportional to the signal obtained. |
| Preparation and Storage | Store at -20 degree C and keep from light immediately upon receipt. Kit has a storage time of 6 months from receipt. Refer to list of materials supplied for storage conditions of individual components.                                                                                                                                                                                                                                                                                                                                                                                                     |

### IMAGES



Standard Curve (Sample)

### ADDITIONAL INFORMATION

#### Related Product Information for CAT assay kit

**Principle of the Assay:** Catalase (CAT, EC 1.11.1.6) is a common antioxidant enzyme that catalyzes the decomposition of hydrogen peroxide (H<sub>2</sub>O<sub>2</sub>) into water and oxygen. It is widely found in aerobic cells containing cytochrome systems. Hydrogen peroxide is highly toxic to cells, and its accumulation leads to oxidation of cellular targets such as DNA, proteins and lipids, leading to mutagenesis and cell death. Protection against oxidative damage to cells is provided by using catalase to remove hydrogen peroxide (H<sub>2</sub>O<sub>2</sub>) from cells. The role of catalase in oxidative stress-related diseases has been extensively studied. Catalase also shows peroxidation activity in which low molecular weight alcohols can be used as electron donors. Fatty alcohols are specific substrates for catalase; however, other enzymes with peroxidation activity do not utilize these substrates. CheKine™ Micro Catalase (CAT) Activity Assay Kit provides a simple and easy assay for the study of catalase activity in a variety of biological samples such as serum, plasma, cells and tissue lysates or biological fluids. This assay kit utilizes the peroxidase function of catalase for measuring catalase activity, in the presence of an appropriate concentration of H<sub>2</sub>O<sub>2</sub>, catalase reacts with methanol to produce formaldehyde, which can react with chromogens. The absorbance of the product can be measured at 540 nm. The catalase activity in the sample is proportional to the OD value.

## NCBI AND UNIPROT INFORMATION

|                                  |             |
|----------------------------------|-------------|
| NCBI GI #                        | 4557014     |
| NCBI GeneID                      | 847         |
| NCBI GenBank Nucleotide #        | NP_001743.1 |
| UniProt Accession #              | P04040      |
| 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/assay-kits/catalase-cat/31524>