

Catalase (CAT) Active Protein | CAT active protein

Active Catalase (CAT)

CATALOG # AAA153116	HOST E coli	APPLICATIONS Activity Assay, Cell Culture
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PRODUCT SYNONYMS

Catalase (CAT); Active Catalase (CAT); Catalase; CAT active protein (prokaryotic); Mouse; CAT active protein

PRODUCT SPECIFICATIONS

Host	E coli
Purity/Purification	Greater than 90% by SDS-PAGE
Form/Format	PBS, pH7.4, containing 0.01% SKL, 5% Trehalose. Freeze-dried powder
Sequence Positions	Ser2~Leu527
Applicable Applications for CAT active protein	Activity Assay, Cell Culture
Expression System	Prokaryotic expression
Species	Mouse
Tag	N-terminal His
Endotoxin Level	<1.0EU per 1ug (determined by the LAL method)
Isoelectric Point	8
Research Area	Enzyme & Kinase
Preparation and Storage	Store at 2-8 degree C for one month, -80 degree C for 12 months Stable for 12 months if correctly stored.

IMAGES

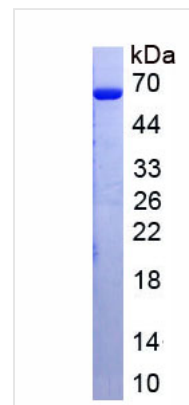
Calculation

$$CAT(U/mg) = \frac{3.45 \cdot d}{\text{time} \cdot 0.1} / \text{mg enzymatic}$$

Where:
3.45=corresponds to the decomposition of 3.45 μmoles of hydrogen peroxide in a 3.0 ml reaction mixture producing a decrease in the A240 from 0.45 to 0.40
d=dilution factor
Time=minutes required for the A240 to decrease from 0.45 to 0.40 absorbance units
0.1 = milliliter of enzyme added to the cuvette

Bioactivity

Catalase (CAT) is an antioxidant enzyme present in all aerobic organisms. It is known to catalyze H₂O₂ into water and oxygen in an energy-efficient manner in the cells exposed to environmental stress. H₂O₂ will have specific absorbance at 240 nm . when wi



SDS-PAGE
Figure. SDS-PAGE

ADDITIONAL INFORMATION

Product Categories/Family for CAT active protein	Active proteins
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NCBI AND UNIPROT INFORMATION

NCBI GI #	157951741
NCBI GeneID	12359
NCBI Accession #	NP_033934.2
NCBI GenBank Nucleotide #	NM_009804.2
UniProt Accession #	P24270; Q3TXQ6
Molecular Weight	59,795 Da
NCBI Official Full Name	catalase
NCBI Official Synonym Full Names	catalase
NCBI Official Symbol	Cat
NCBI Official Synonym Symbols	Cas1; Cs-1; Cas-1; 2210418N07
NCBI Protein Information	catalase
UniProt Protein Name	Catalase
UniProt Gene Name	Cat
UniProt Synonym Gene Names	Cas-1; Cas1

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/e-coli-active-protein/catalase-cat/153116>