

Catalase Active Protein | CAT active protein

Recombinant Human Catalase

CATALOG #
AAA38978

HOST
E Coli

PRODUCT SYNONYMS

Catalase; Recombinant Human Catalase; CAT Human; Catalase Human Recombinant; CAT; CAT active protein

PRODUCT SPECIFICATIONS

Host	E Coli
Purity/Purification	Greater than 90.0% as determined by SDS-PAGE.
Form/Format	The CAT solution (1mg/ml) contains 20mM Tris-HCl buffer (pH 8.0), 0.15M NaCl and 10% glycerol. Sterile filtered yellowish solution.
Sequence	<u>MGSSHHH HHHSSGLVPR GSHMAD SRDPASDQMQ HWKEQRAAQK ADVLTGAGN PVGDKLNVIT VGPRGPLLQ DVVFTDEMAH FDRERIPERV VHAKGAGAFG YFEVTHDITK YSKAKVFEHI GKKTPIAVRF STVAGESGSA DTVRDPRGFA VKFYTEDGNW DLVGNNTPIF FIRDPIPFPS FIHSQKRNPQ THLKDPDMVW DFWSLRPESL HQVSFLFSR GIPDGHRHMN GYGSHTFKLV NANGEAVYCK FHYKTDQGIK NLSVEDAARL SQEDPDYGIR DLFNAIATGK YPSWTFYIQV MTFNQAETFP FNPFDLTQVW PHKDYPLIPV GKLVLNRPV NYFAEVEQIA FDPNMPPIGI EASPDKMLQG RLFAYPDTHR HRLGPNYLHI PVNCPYRARV ANYQRDGPIC MQDNQGGAPN YYPNSFGAPE QQPSALEHSI QYSGEVRRFN TANDDNVTQV RAFYVNVLNE EQRKRLCENI AGHLKDAQIF IQKKAVKNFT EVHPDYGSHI QALLDKYNAE KPKNAIHTFV QSGSHLAARE KANL.</u>
Sequence Length	527
Unit Defenition	One unit will decompose 1.0 umole of H ₂ O ₂ per minute at pH 8.0 at 25 degree C.
Biological Activity	Specific activity is >30,000 unit/mg.
Preparation and Storage	Store at 4 degree C if entire vial will be used within 2-4 weeks. Store, frozen at -20 degree C for longer periods of time. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Avoid multiple freeze-thaw cycles.

ADDITIONAL INFORMATION

Related Product Information for CAT active protein	Description: CAT Human Recombinant produced in E Coli is a single, non-glycosylated polypeptide chain containing 547 amino acids (1-527) and having a molecular mass of 61.9kDa. CAT is fused to a 20 amino acid His-tag at N-terminus & purified by proprietary chromatographic techniques. Introduction: Catalase (CAT) is a key antioxidant enzyme in the body's defense against oxidative stress. Furthermore, Catalase is a heme enzyme which is present in the peroxisome of virtually all aerobic cells. Catalase converts the reactive oxygen species hydrogen peroxide to water and oxygen and thus diminishes the toxic effects of hydrogen peroxide. Catalase stimulates growth of cells including T-cells, B-cells, myeloid leukemia cells, melanoma cells, mastocytoma cells and normal and transformed fibroblast cells. Catalase gene polymorphisms are linked with decreases in catalase activity nevertheless, to date, acatalasemia is the only disease known to be caused by the CAT gene.
Product Categories/Family for CAT active protein	Enzymes

NCBI AND UNIPROT INFORMATION

NCBI GI #	4557014
NCBI GeneID	847
NCBI Accession #	NP_001743.1
NCBI GenBank Nucleotide #	NM_001752.3
UniProt Accession #	P04040; Q2M1U4; Q4VXX5; Q9BWT9; Q9UC85; A8K6C0; B2RCZ9; D3DR07
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/e-coli-cat-active-protein/catalase/38978>