

Recombinant Human CAT Protein

Cat. No. CAT-176H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human CAT was expressed in E. coli.
Species	Human
Source	E.coli
Description	This gene encodes catalase, a key antioxidant enzyme in the bodies defense against oxidative stress. Catalase is a heme enzyme that is present in the peroxisome of nearly all aerobic cells. Catalase converts the reactive oxygen species hydrogen peroxide to water and oxygen and thereby mitigates the toxic effects of hydrogen peroxide. Oxidative stress is hypothesized to play a role in the development of many chronic or late-onset diseases such as diabetes, asthma, Alzheimer's disease, systemic lupus erythematosus, rheumatoid arthritis, and cancers. Polymorphisms in this gene have been associated with decreases in catalase activity but, to date, acatalasemia is the only disease known to be caused by this gene.
Form	Supplied as a 0.2 μM filtered solution of PBS, pH 7.4
Molecular Mass	59.7kD
AA Sequence	ADSRDPASDQMQRHWKEQRAAQKADVLTTGAGNPVGDKLNVITVGPRGPLLVQDVV FTDEMAHFDRERIPERVVHAKGAGAFGYFEVTHDITKYSKAKVFEHIGKKTPIAVRFS TVAGESGSADTVRDPRGFAVKFYTEDGNWDLVGNNTPIFFIRDPILFPSFIHSQKRN PQTHLKDPDMVWDFWSLRPESLHQVSFLFSDRGIPDGHHRHMNGYGSHTFKLVNAN GEAVYCKFHYKTDQGIKNLSVEDAARLSQEDPDYGIRDLFNAIATGKYPSWTFYIQV

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MTFNQAETFPFNPFDLTKVWPHKDYPLIPVGKLVNLRNPVNYFAEVEQIAFDPSNMP
 PGIEASPDKMLQGRLFAYPDTHRHRLGPNYLHIPVNCPYRARVANYQRDGPMMQ
 DNQGGAPNYYPNISFGAPEQQPSALEHSIQYSGEVRRFNTANDDNVTQVRAFVNV
 LNEEQRKRLCENIAGHLKDAQIFIQKKAVKNFTEVHPDYGSHIQALLDKYNAEKPNA
 IHTFVQSGSHLAAREKANL

Endotoxin Endotoxin level is <0.1 ng/g of protein (<1EU/g).

Purity >95% as determined by SDS-PAGE and Coomassie blue staining

GENE INFORMATION

Gene Name CAT catalase [Homo sapiens]

Official Symbol CAT

Synonyms CAT; catalase; MGC138422; MGC138424;

Gene ID 847

mRNA Refseq NM_001752

Protein Refseq NP_001743

MIM 115500

UniProt ID P04040

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