

# Recombinant Full Length Human CAT Protein, GST-tagged

**Cat. No.** CAT-2752HF    **Lot. No.** (See product label)

## SPECIFICATION

<b>Product Overview</b>	Human CAT full-length ORF (NP_001743.1, 1 a.a. - 527 a.a.) recombinant protein with GST-tag at N-terminal.
<b>Species</b>	Human
<b>Source</b>	In Vitro Cell Free System
<b>ProteinLength</b>	527 amino acids
<b>Description</b>	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. [provided by RefSeq, Oct 2009]
<b>Molecular Mass</b>	86.2 kDa
<b>AA Sequence</b>	MADSRDPASDQMQRHWKEQRAAQKADVLTTGAGNPVGDKLNVTVGPRGPLLVQD VVFTDEMAHFDRERIPERVVHAKGAGAFGYFEVTHDITKYSKAKVFEHIGKKTPIAVR FSTVAGESGSADTVRDRPRGFVAVKFYTEDGNWDLVGNNTPIFFIRDPILFPSFIHSQKR

 Tel: 1-631-559-9269    1-516-512-3133

 Email: [info@creative-biomart.com](mailto:info@creative-biomart.com)     Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

NPQTHLKDPDMVWDFWSLRPESLHQVSFLFSDRGIPDGHRHMNGYGSHTFKLVNA  
 NGEAVYCKFHVKTDQGIKNSVEDAARLSQEDPDYGIRDLFNAIATGKYPSWTFYIQ  
 VMTFNQAETFPFNPFDLTKVWPHKDYPLIPVGKLVNLRNPVNYFAEVEQIAFDPSNM  
 PPGIEASPDKMLQGRLFAYPDTHRHRGPNYLHIPVNCPYRARVANYQRDGPMM  
 QDNQGGAPNYYPNSFGAPEQQPSALEHSIQYSGEVRRFNTANDDNVTQVRAFVYN  
 VLNEEQRKRLCENIAGHLKDAQIFIQKKAVKNFTEVHPDYGSHIQALLDKYNAEKPKN  
 AIHTFVQSGSHLAAREKANL

**Applications**  
 Enzyme-linked Immunoabsorbent Assay  
 Western Blot (Recombinant protein)  
 Antibody Production  
 Protein Array

**Storage**  
 Store at -80 centigrade. Aliquot to avoid repeated freezing and thawing.

**Storage Buffer**  
 50 mM Tris-HCl, 10 mM reduced Glutathione, pH=8.0 in the elution buffer.

## 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](#)

 Tel: 1-631-559-9269 1-516-512-3133

 Email: [info@creative-biomart.com](mailto:info@creative-biomart.com)  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA



<b>MIM</b>	115500
------------	--------

<b>UniProt ID</b>	P04040
-------------------	--------

 Tel: 1-631-559-9269 1-516-512-3133

 Email: [info@creative-biomart.com](mailto:info@creative-biomart.com)  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA