

## Product datasheet for **TP310763**

### Catalase (CAT) (NM\_001752) Human Recombinant Protein

#### Product data:

Product Type:	Recombinant Proteins
Description:	Recombinant protein of human catalase (CAT), 20 µg
Species:	Human
Expression Host:	HEK293T
Expression cDNA Clone or AA Sequence:	>RC210763 protein sequence <b>Red</b> =Cloning site <b>Green</b> =Tags(s)
	MADSRDPASDQMQRHWKEQRAAQKADVLTGAGNPVGDKLVNITVGRGPLLVQDVVFTDEMAHFDRERIP ERVVHAKGAGAFGYFEVTHDITKYSKAKVFEHIGKKTPIAVRFSTVAGESGSADTVRDRPRGFVAVKFYTED GNWDLVGNNTPIFFIRDPIPFPSFIHSQKRNPQTHLKDPMVWDFWLSLRPESLHQVSFLFSDRGIPDGHR HMNGYGSHTFKLVNANGEAVYCKFHKYKTDQGIKNSVEDAARLSQEDPDYGIRDLFNAIATGKYPSTWTFY IQVMTFNQAETFPFNPFDLTKVWPHKDYPLIPVVGKLVNLRNPVNYFAEVEQIAFDPSNMPPGIEASPKM LQGRLFAYPDTHRHRGPNYLHIPVNCYPYRVRVANYQRDGMCMQDNQGGAPNYYPNSFGAPEQQPSALE HSIQYSGEVRRFNTANDDNVTQVRAFVYVNLNEEQKRKRCENIAGHLKDAQIFIQKKAVKNFTEVHPDYG SHIQALLDKYNAEKPKNAIHTFVQSGSHLAAREKANL  <b>TRTRPLEQKLISEEDLAANDILDYKDDDDKV</b>
Tag:	C-Myc/DDK
Predicted MW:	59.6 kDa
Concentration:	>0.05 µg/µL as determined by microplate BCA method
Purity:	> 80% as determined by SDS-PAGE and Coomassie blue staining
Buffer:	25 mM Tris-HCl, 100 mM glycine, pH 7.3, 10% glycerol
Preparation:	Recombinant protein was captured through anti-DDK affinity column followed by conventional chromatography steps.
Note:	For testing in cell culture applications, please filter before use. Note that you may experience some loss of protein during the filtration process.
Storage:	Store at -80°C.
Stability:	Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.



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RefSeq: [NP\\_001743](#)

Locus ID: 847

UniProt ID: [P04040](#), [A0A384P5Q0](#)

RefSeq Size: 2300

Cytogenetics: 11p13

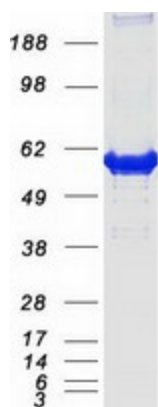
RefSeq ORF: 1581

**Summary:** 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]

**Protein Families:** Druggable Genome

**Protein Pathways:** Amyotrophic lateral sclerosis (ALS), Metabolic pathways, Methane metabolism, Tryptophan metabolism

### Product images:



Coomassie blue staining of purified CAT protein (Cat# TP310763). The protein was produced from HEK293T cells transfected with CAT cDNA clone (Cat# [RC210763]) using MegaTran 2.0 (Cat# [TT210002]).