

Product datasheet for **TP310763L**

Catalase (CAT) (NM_001752) Human Recombinant Protein

Product data:

Product Type: Recombinant Proteins

Description: Recombinant protein of human catalase (CAT), 1 mg

Species: Human

Expression Host: HEK293T

Expression cDNA >RC210763 protein sequence

Clone or AA **Red**=Cloning site **Green**=Tags(s)

Sequence:

MADSRDPASDQMQRHWKEQRAAQKADVLTGAGNPVGDKLVNITVGRGPLLVQDVVFTDEMAHFDRERIP
ERVVHAKGAGAFGYFEVTHDITKYSKAKVFEHIGKKTPIAVRFSTVAGESGSADTVRDRPRGFAVKFYTED
GNWDLVGNNTPIFFIRDPIPFPSFIHSQKRNPQTHLKDPDMVWDFWLSRPESLHQVSFLFSDRGIPDGHR
HMNGYGSHTFKLVNANGEAVYCKFHKYKTDQGIKNSVEDAARLSQEDPDYGIRDLFNAIATGKYPSTWTFY
IQVMTFNQAETFPFNPFDLTKVWPHKDYPLIPVVGKLVNLRNPVNYFAEVEQIAFDPSNMPPGIEASPKM
LQGRLFAYPDTHRHRGPNYLHIPVNCYPYRVRVANYQRDGMCMQDNQGGAPNYYPNSFGAPEQQPSALE
HSIQYSGEVRRFNTANDDNVTQVRAFVYVNLNEEQKRKRLCENIAGHLKDAQIFIQKKAVKNFTEVHPDYG
SHIQALLDKYNAEKPKNAIHTFVQSGSHLAAREKANL

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

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

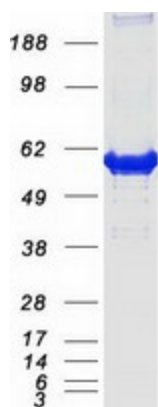
RefSeq ORF: 1581

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]).