

## **Product datasheet for TP720852M**

## OriGene Technologies, Inc.

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

**Product data:** 

**Product Type:** Recombinant Proteins

**Description:** Purified recombinant protein of Human catalase (CAT)

Species: Human
Expression Host: E. coli

**Expression cDNA Clone** 

Ala2-Leu527

or AA Sequence:

Tag: Tag Free
Predicted MW: 59.7 kDa

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

Buffer: Provided lyophilized from a 0.2 μm filtered solution of 20 mM Tris-HCl, 150 mM NaCl

Endotoxin: Endotoxin level is < 0.1 ng/μg of protein (< 1 EU/μg)

Storage: Store at -80°C.

**Stability:** Stable for at least 3 months from date of receipt under proper storage and handling

conditions.

**RefSeq:** NP 001743

Locus ID: 847

UniProt ID: <u>P04040</u>, <u>A0A384P5Q0</u>

RefSeq Size: 2300 Cytogenetics: 11p13 RefSeq ORF: 1581



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**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