

Native Human, Catalase

Cat. No. CAT-5276H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Native human CAT was expressed in Human erythrocyte.
Species	Human
Source	Human Erythrocyte
Description	Composed of four identical subunits each with a molecular weight of 50000. Catalyzes the reaction $2H_2O_2$ to $H_2O + O_2$. Catalase, along with the superoxide dismutase and glutathione peroxidase, controls the levels of oxygen-derived free radicals in mammalian cells, and together may function as a somatic oxidant defense. Prepared from whole blood shown to be non reactive for HbsAG, anti-HCV, anti-HBc, and negative for anti-HIV 1&2 by FDA approved tests. >95 percent pure by SDS-PAGE.
Form	Liquid in 0.05 M Tris-HCl + pH 8.0.
Molecular Weight	230000
Purity	>95% by SDS-PAGE analysis
Concentration	10.0 mg/ml
Specific Activity	Greater than 50000 units per mg (One unit is equal to the amount of enzyme that will decompose one micromole of hydrogen peroxide per minute at 25C, pH 7.4).

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Storage	When stored at -80oC productis stable for 3 years from date of delivery. Avoid repeated freeze-thawcycles.
Pathways	Amyotrophic lateralsclerosis (ALS); Folate Metabolism; FoxO family signaling; Metabolic pathways;Metabolism; Metabolism of nucleotides; Oxidative Stress; Peroxisome; Purinecatabolism; Purine metabolism; Selenium Pathway; Tryptophan metabolism; oleatebiosynthesis I (plants); oxidative ethanol degradation III; superpathway offatty acid biosynthesis II (plant)
GENE INFORMATION	
Gene Name	CAT catalase [Homo sapiens]
Official Symbol	CAT
Synonyms	CAT; catalase; MGC138422; MGC138424;OTTHUMP00000041455
Gene ID	847
mRNA Refseq	NM_001752
Protein Refseq	NP_001743
MIM	115500
UniProt ID	P04040
Chromosome Location	11p13
Function	NADP binding; catalaseactivity; heme binding; metal ion binding; oxidoreductase

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activity, acting on peroxide as acceptor; protein homodimerization activity

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