

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 $2\text{H}_2\text{O}_2$ to $\text{H}_2\text{O} + \text{O}_2$. 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 25°C, pH 7.4).

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Storage	When stored at -80oC product is stable for 3 years from date of delivery. Avoid repeated freeze-thaw cycles.
Pathways	Amyotrophic lateral sclerosis (ALS); Folate Metabolism; FoxO family signaling; Metabolic pathways; Metabolism; Metabolism of nucleotides; Oxidative Stress; Peroxisome; Purine catabolism; Purine metabolism; Selenium Pathway; Tryptophan metabolism; oleate biosynthesis I (plants); oxidative ethanol degradation III; superpathway of fatty 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; catalase activity; heme binding; metal ion binding; oxidoreductase

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activity, acting on peroxide as acceptor; protein homodimerization activity

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