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# 32-2209: CAT Recombinant Protein

**Alternative Name :** Catalase,CAT.

## Description

Source : Escherichia Coli. CAT Human Recombinant produced in E.coli is a single, non-glycosylated polypeptide chain containing 547 amino acids (1-527) and having a molecular mass of 61.9kDa.CAT is fused to a 20 amino acid His-tag at N-terminus & purified by proprietary chromatographic techniques. Catalase (CAT) is a key antioxidant enzyme in the body's defense against oxidative stress. Furthermore, Catalase is a heme enzyme which is present in the peroxisome of virtually all aerobic cells. Catalase converts the reactive oxygen species hydrogen peroxide to water and oxygen and thus diminishes the toxic effects of hydrogen peroxide. Catalase stimulates growth of cells including T-cells, B-cells, myeloid leukemia cells, melanoma cells, mastocytoma cells and normal and transformed fibroblast cells. Catalase gene polymorphisms are linked with decreases in catalase activity nevertheless, to date, acatalasemia is the only disease known to be caused by the CAT gene.

## Product Info

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| **Amount :** | 20 µg |
| **Purification :** | Greater than 90.0% as determined by SDS-PAGE. |
| **Content :** | The CAT solution (1mg/ml) contains 20mM Tris-HCl buffer (pH 8.0), 0.15M NaCl and 10% glycerol. |
| **Storage condition :** | Store at 4°C if entire vial will be used within 2-4 weeks. Store, frozen at -20°C for longer periods of time. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA).Avoid multiple freeze-thaw cycles. |
| **Amino Acid :** | MGSSHHHHHH SSGLVPRGSH MADSRDPASD QMQHWKEQRA AQKADVLTTG AGNPVGDKLN VITVGPRGPL LVQDVVFTDE MAHFDRERIP ERVVHAKGAG AFGYFEVTHD ITKYSKAKVF EHIGKKTPIA VRFSTVAGES GSADTVRDPR GFAVKFYTED GNWDLVGNNT PIFFIRDPIL FPSFIHSQKR NPQTHLKDPD MVWDFWSLRP ESLHQVSFLF SDRGIPDGHR HMNGYGSHTF KLVNANGEAV YCKFHYKTDQ GIKNLSVEDA ARLSQEDPDY GIRDLFNAIA TGKYPSWTFY IQVMTFNQAE TFPFNPFDLT KVWPHKDYPL IPVGKLVLNR NPVNYFAEVE QIAFDPSNMP PGIEASPDKM LQGRLFAYPD THRHRLGPNY LHIPVNCPYR ARVANYQRDG PMCMQDNQGG APNYYPNSFG APEQQPSALE HSIQYSGEVR RFNTANDDNV TQVRAFYVNV LNEEQRKRLC ENIAGHLKDA QIFIQKKAVK NFTEVHPDYG SHIQALLDKY NAEKPKNAIH TFVQSGSHLA AREKANL. |

## Application Note

Specific activity is >30,000 unit/mg.