

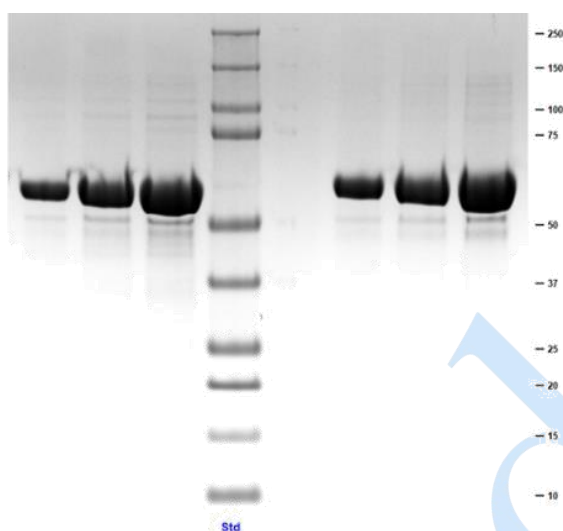
## Catalase from Human Erythrocyte

### np001114

Composed of four identical subunits each with a molecular weight of 58,000. Catalyzes the reaction  $2 \text{H}_2\text{O}_2 \rightarrow \text{H}_2\text{O} + \text{O}_2$ . Catalase, along with the superoxides 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-required tests.

Aladdin products are laboratory reagents and are not to be administered to humans or used for any drug purpose. For research or further manufacturing use only.



### SDS-PAGE

4-12% Bis-Tris gel

1. Catalase- 5 µg (Heated/Reduced)
2. Catalase- 10 µg (Heated/Reduced)
3. Catalase- 20 µg (Heated/Reduced)
4. Standard
5. Blank
6. Catalase- 5 µg (Not Heated/Non-Reduced)
7. Catalase- 10 µg (Not Heated/Non-Reduced)
8. Catalase- 20 µg (Not Heated/Non-Reduced)

### Storage Conditions

Store at  $-80^{\circ}\text{C}$  long term ( $>1$  year). Upon receipt, it is recommended to aliquot. Avoid freeze/thaw cycle.

**Protein Determination:**

Extinction Coefficient (E) = 1.39 (0.1% at 280 nm, 1cm pathway)

**Molecular Weight:**

230,000 Da

**Buffer:**

50 mM Tris-HCl, pH 8.0

**Physical Specifications:**

Form: Frozen

Purity: ≥ 95% by SDS-Page

**Product Datasheet**

**Product:** Catalase from Human Erythrocyte

**Form:** Frozen

**Available Packaging:** 500 µg and 1 mg. Larger aliquots are available upon request.

**Buffer:** Frozen in 50 mM Tris-HCl, pH 8.0.

**Purity:** ≥ 95% by SDS-PAGE

**Molecular Weight:** 230,000 Da

**Native Structure:** Homotetramer

**Subunit:** 58,000 Da

**Activity:** > 50,000 units/mg protein. One unit is equal to the amount of enzyme that will decompose 1 µmol of hydrogen peroxide per minute at 25 °C, pH 7.0.

**Protein Determination:** Extinction Coefficient (E) = 1.39 (0.1% at 280 nm, 1 cm pathway)

**Source:** Human Erythrocytes

**Testing:** Donor material is obtained from suppliers that perform a comprehensive infectious disease screening panel. Donor red blood cell units were tested individually by the supplier and found non-reactive for HIV-1/2, Hepatitis B (HBsAg and HBV DNA), Hepatitis C (HCV Ab and HCV RNA), syphilis, West Nile virus (WNV), and Chagas (T. cruzi). Blood group and Rh type were also confirmed. Testing documentation is maintained and available upon request.