Data Sheet (Cat.No.TMPJ-01147)

TargetMol

Cld Protein, Dechloromonas aromatica, Recombinant (His)

General Information

Synonyms: Daro_2580;Chlorite O(2)-lyase;Chlorite dismutase;Cld

Protein Construction: Met35-Asp282

Species: Dechloromonas aromatica

Expression Host: E. coli

Accession: Q47CX0

Molecular Weight: 32 KDa (reducing condition)

AA Sequence: Met35-Asp282

QC Testing

Biological Activity: Activity has not been tested. It is theoretically active, but we cannot guarantee it. If you require protein activity, we recommend choosing the eukaryotic expression version first.

Purity: Greater than 95% as determined by reducing SDS-PAGE. (QC verified)

Endotoxin: < 0.1 ng/μg (1 EU/μg) as determined by LAL test.

Formulation: Lyophilized from a solution filtered through a 0.22 μm filter, containing 20 mM Tris-HCl, 150 mM NaCl, 0.5 mM EDTA, 4% sucrose, 0.02% Tween 80, pH 7.4.

Preparation and Storage

Reconstitution:

Reconstitute the lyophilized protein in distilled water. The product concentration should not be less than 100 μg/ml. Before opening, centrifuge the tube to collect powder at the bottom. After adding the reconstitution buffer, avoid vortexing or pipetting for mixing.

Stability & Storage:

Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

Protein Background

Chlorite dismutase (Cld) found in prokaryotic organisms, also known as Chlorite O2-lyase, is a b-type heme containing enzyme that catalyzes the reduction of chlorite into chloride plus dioxygen. The subunit of chlorite dismutase consists of a heme free N-terminal and a heme b containing C-terminal ferredoxin-like fold with high structural homology to the dye-decolorizing peroxidases (DyPs). The physiological role of Cld in prokaryote has been shown that some microorganisms can use perchlorate or chlorate as terminal electron acceptors for

anaerobic respiration thereby producing chlorite that must be detoxified. This enzyme has gained attention because it can be used in the development of bioremediation processes, biosensors, and controlled dioxygen production.

Tel:781-999-4286 E_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481