Recombinant Dechloromonas aromatica Chlorite Dismutase Protein (His Tag)

Catalog Number: PKSQ050054

Note: *Centrifuge before opening to ensure complete recovery of vial contents.*

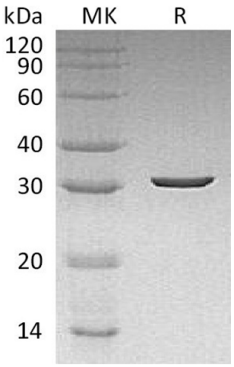
Description

Species	Dechloromonas aromatica
Source	E.coli-derived Dechloromonas aromatica Chlorite O(2)-lyase/Chlorite Dismutase protein Met35-Asp282, with an N-terminal His
Calculated MW	31.3 kDa
Observed MW	32 kDa
Accession	Q47CX0
Bio-activity	Not validated for activity

Properties

Purity	> 95 % as determined by reducing SDS-PAGE.
Endotoxin	< 1.0 EU per μg of the protein as determined by the LAL method.
Storage	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80 ℃. Reconstituted protein solution can be stored at 4-8℃ for 2-7 days. Aliquots of reconstituted samples are stable at < -20℃ for 3 months.
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.
Formulation	Lyophilized from a 0.2 μm filtered solution of 20mM Tris-HCl, 150mM NaCl, 0.5mM EDTA, 4% sucrose, 0.02% Tween 80, pH 7.4. Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.
Reconstitution	Please refer to the printed manual for detailed information.

Data



> 95 % as determined by reducing SDS-PAGE.

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.

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