



Recombinant Protein Technical Manual

Recombinant *Dechloromonas aromatica* Chlorite Dismutase Protein (His Tag)
RPES3373

Product Data:

Product SKU: RPES3373

Size: 10µg

Species: *Dechloromonas aromatica*

Expression host: *E. coli*

Uniprot: Q47CX0

Protein Information:

Molecular Mass: 31.3 kDa

AP Molecular Mass: 32 kDa

Tag: N-His

Bio-activity:

Purity: > 95% as determined by reducing SDS-PAGE.

Endotoxin: < 1.0 EU per µg as determined by the LAL method.

Storage: Lyophilized protein should be stored at < -20°C, though stable at room temperature for 3 weeks. Reconstituted protein solution can be stored at 4-7°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C 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 PBS, 0.5mM EDTA, pH7.4.

Reconstitution: Please refer to the printed manual for detailed information.

Application:

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

Immunogen Information:

Sequence: Met35-Asp282

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.