

Recombinant Porcine Citrate Synthase (28-464aa), C-His tag

The enzyme citrate synthase E.C. 2.3.3.1 (previously 4.1.3.7) exists in nearly all living cells and stands as a pace-making enzyme in the first step of the citric acid cycle (or Krebs cycle). Citrate synthase is localized within eukaryotic cells in the mitochondrial matrix, but is encoded by nuclear DNA rather than mitochondrial. It is synthesized using cytoplasmic ribosomes, then transported into the mitochondrial matrix.

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Product Information

Product Name	Recombinant Porcine Citrate Synthase (28-464aa), C-His tag
Cat No.	EXWM-5830
EC No.	EC 2.3.3.1
Activity	145,312.5 U/mg
Source	E. coli
Species	Porcine
Purity	>95% by SDS-PAGE
Form	Liquid

Applications

- Biomarker for mitochondrial function: Changes in citrate synthase activity can reflect alterations in mitochondrial function, making it a useful indicator of cellular health.
- Diagnostic marker for various diseases: Alterations in citrate synthase activity have been associated with various diseases, including metabolic disorders, neurodegenerative diseases, and cancer.
- Drug discovery: Citrate synthase is an attractive target for drug discovery and development. Inhibitors of citrate synthase can potentially be used as therapeutic agents for conditions such as cancer and metabolic disorders.
- Environmental monitoring: Citrate synthase activity has been used as a biomarker for environmental monitoring. Changes in citrate synthase activity in organisms exposed to environmental pollutants can indicate the presence of stress or toxicity.

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