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Glucose Dehydrogenases

(GDHs)

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Product Overview

Glucose dehydrogenase (GDH) catalyzes the oxidation of D-glucose to D-gluconolactone, which naturally hydrolyzes to gluconic acid, while reducing NAD^+ or $NADP^+$ to NADH or NADPH. This reaction enables efficient in situ cofactor regeneration, minimising dependence on costly nicotinamide cofactors and supporting continuous biocatalytic processes.

Powered by our proprietary **ZymeLeap™ platform**, our GDH enzymes are developed for high turnover, stability, and compatibility with dehydrogenase and oxidoreductase systems. Operating under mild, aqueous conditions, they enable efficient cofactor recycling to help lower material costs, improve process efficiency, and enhance scalability for redox biotransformations in pharmaceutical synthesis, chemical manufacturing, and bioprocess development, including multi-enzyme cascade systems.

Product Specifications

Product Name	Glucose Dehydrogenase
Applications	KRED, ADH, AmDH, AADH, and P450 Biocatalytic Proccesses
Operational Stability	• Active at temperatures up to 50°C • Maintains activity across pH 6 — 10 • Tolerates organic solvents, including DMSO concentrations up to 30%
Form	Freeze-dried powder
Storage	-20°C

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