

Product Information

Fucose Dehydrogenase (FDH) from *Pseudomonas sp.*

Recombinant form expressed in *Escherichia coli*

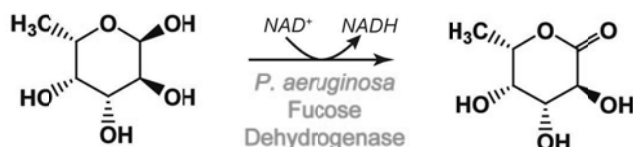
Catalogue Number FDHPS

EC 1.1.1.122

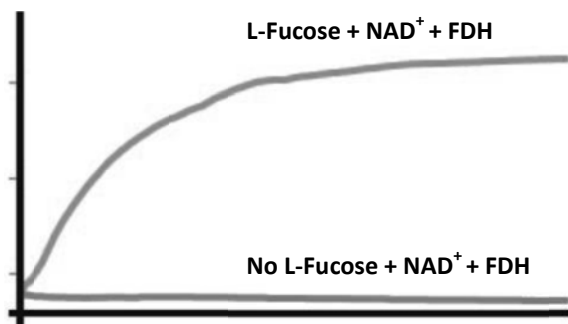
Synonyms: L-fuco-beta-pyranose dehydrogenase

Product Description

FDH is part of the UDP-glucose/GDP-mannose dehydrogenase family. FDH converts L-Fucose to L-Fucono-1,5-lactone while reducing NAD⁺ to NADH. It may be therefore used as a precursor for the enzymatic synthesis of glycosaminoglycans such as hyaluronan, chondroitin sulfate, and heparan sulfate.



This product is recombinantly expressed in *Escherichia coli* and was purified using nickel-chelation chromatography. The purified enzyme was verified to have a mass of 42 kDa.



FDH will contain 0.2 M sodium chloride, 0.3 M imidazole, 10% (v/v) glycerol and 0.1 M Tris/HCl buffer, pH 9.0.

Each lot of enzyme is tested and confirmed negative for the following contaminating activities: neuraminidase, α/β -galactosidase, β -mannosidase, β -xylosidase, β -N-acetylglucosaminidase, α/β -N-acetylgalactosaminidase, α -1 \rightarrow (2,6)-fucosidase. Protease activity was also not detected.

Specific Activity: 0.2-0.4 units/mg of protein

Unit Definition: One unit will produce 1.0 μ mole of L-Fucono-1,5-lactone and NADH per minute at pH 9.0 at 37°C using L-Fucose and NAD⁺ as a substrate.

Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the material Data Safety Sheet for information regarding hazards and safe handling practices.

Storage/Stability

The product can be stored for up to 2 years at room temperature. After adding the Storage Buffer, store this product at 2-8°C. In liquid form, it will remain active for at least 12 months. For extended shelf-life, please aliquot and store at -80°C. **Do not freeze/thaw multiple times.**

Version: 2016-01-17