

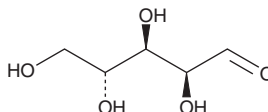
# PRODUCT INFORMATION



## D-Arabinose

Item No. 35700

CAS Registry No.: 10323-20-3  
Synonym: D-(-)-Arabinose  
MF:  $C_5H_{10}O_5$   
FW: 150.1  
Purity:  $\geq 95\%$   
Supplied as: A solid  
Storage:  $-20^\circ\text{C}$   
Stability:  $\geq 4$  years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

### Laboratory Procedures

D-Arabinose is supplied as a solid. A stock solution may be made by dissolving the D-arabinose in water. The solubility of D-arabinose in water is approximately 30 mg/ml. We do not recommend storing the aqueous solution for more than one day.

### Description

D-Arabinose is a monosaccharide. It has been found in the O-specific polysaccharide of LPS in *P. maltophilia*.<sup>1</sup> D-Arabinose (50 and 100 mM) inhibits *S. oralis*, *F. nucleatum*, and *P. gingivalis* biofilm formation as well as the activity of autoinducer 2, a quorum-sensing molecule involved in the pathogenesis of periodontitis, in *V. harveyi* in a reporter assay.<sup>2</sup> It reduces the growth of *C. elegans* ( $IC_{50} = 7.5$  mM), an effect that can be reversed by D-ribose or D-fructose, but not D-glucose.<sup>3</sup>

### References

1. Wilkinson, S.G., Galbraith, L., and Anderton, W.J. Lipopolysaccharides from *Pseudomonas maltophilia*: Composition of the lipopolysaccharide and structure of the side-chain polysaccharide from strain N.C.I.B. 9204. *Carbohydr. Res.* **112**(2), 241-252 (1983).
2. An, S.-J., Namkung, J.-U., Ha, K.-W., et al. Inhibitory effect of D-arabinose on oral bacteria biofilm formation on titanium discs. *Anaerobe* 102533 (2022).
3. Sakoguchi, H., Yoshihara, A., Shintani, T., et al. Growth inhibitory effect of D-arabinose against the nematode *Caenorhabditis elegans*: Discovery of a novel bioactive monosaccharide. *Bioorg. Med. Chem. Lett.* **26**(3), 726-729 (2106).

#### WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

#### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

#### WARRANTY AND LIMITATION OF REMEDY

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