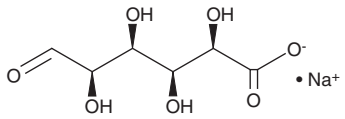
PRODUCT INFORMATION

L-Iduronic Acid (sodium salt)

Item No. 21066

CAS Registry No.:	61199-83-5
Formal Name:	L-iduronic acid, monosodium salt
Synonyms:	L-IdoA, L-Idopyranosiduronic Acid, L-Iduronate
MF:	$C_6H_9O_7$ • Na
FW:	216.1
Purity:	≥95%
Supplied as:	A solid
Storage:	-20°C
Stability:	≥4 years
Item Origin:	Synthetic



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

Laboratory Procedures

L-Iduronic acid (sodium salt) is supplied as a solid. A stock solution may be made by dissolving the L-iduronic acid (sodium salt) in the solvent of choice, which should be purged with an inert gas. L-Iduronic acid (sodium salt) is slightly soluble in methanol (warmed).

L-Iduronic acid (sodium salt) is slightly soluble in aqueous solutions. To enhance aqueous solubility, dilute the organic solvent solution into aqueous buffers or isotonic saline. If performing biological experiments, ensure the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. We do not recommend storing the aqueous solution for more than one day.

Description

L-Iduronic acid is an epimer of glucuronic acid and a monosaccharide component of glycosaminoglycans (GAGs), including heparin and chondroitin sulfate B, found on the outer cell membrane.[1] L-Iduronic acid is conformationally flexible, which allows it to bind metal ions and may be important for the antithrombotic activity of heparin.[2,3] Iduronic acid-containing GAGs are selectively bound by basic fibroblast growth factor (bFGF), which prevents infection of Hep-2 cells with respiratory syncytial virus (RSV) *in vitro*.[1]

References

1. Hallak, L.K., Collins, P.L., Knudson, W., *et al.* Iduronic acid-containing glycosaminoglycans on target cells are required for efficient respiratory syncytial virus infection. *Virology* **271(2)**, 264-275 (2000).
2. Das, S.K., Mallet, J.-M., Esnault, J., *et al.* Synthesis of conformationally locked carbohydrates: A skew-boat conformation of L-iduronic acid governs the antithrombotic activity of heparin. *Angew Chem. Int. Ed. Engl.* **40(9)**, 1670-1673 (2001).
3. Whitfield, D.M., Stojkovski, S., and Sarkar, B. Metal coordination to carbohydrates. Structures and function. *Coord. Chem. Rev.* **122(1-2)**, 171-225 (1993).

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