

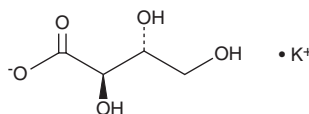
PRODUCT INFORMATION



D-Erythronic Acid (potassium salt)

Item No. 44227

CAS Registry No.: 88759-55-1
Formal Name: (2R,3R)-2,3,4-trihydroxy-butanoic acid, monopotassium salt
Synonyms: D-Erythronate, (2R,3R)-2,3,4-Trihydroxybutanoate
MF: $C_4H_7O_5 \cdot K$
FW: 174.2
Purity: $\geq 95\%$
Supplied as: A solid
Storage: $-20^\circ C$
Stability: ≥ 4 years



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

Laboratory Procedures

D-Erythronic acid (potassium salt) is supplied as a solid. A stock solution may be made by dissolving the D-erythronic acid (potassium salt) in the solvent of choice, which should be purged with an inert gas. D-Erythronic acid (potassium salt) is sparingly soluble (1-10 mg/ml) in a 1:1 solution acetonitrile:water.

Description

D-Erythronic acid is a carbohydrate found in aqueous humor, cerebrospinal fluid, and blood.^{1,2} It is an oxidative product of N-acetyl-D-glucosamine (GlcNAc; Item No. 13136) and an oxidative degradation product of glycosylated lysine residues in proteins.^{3,4} D-Erythronic acid levels are increased in the urine of patients with transaldolase (TALDO) deficiency.⁵

References

1. Harding, J.J., Hassett, P.C., Rixon, K.C., *et al.* Sugars including erythronic and threonic acids in human aqueous humour. *Curr. Eye Res.* **19**(2), 131-136 (1999).
2. Hoffmann, G.F., Seppel, C.K., Holmes, B., *et al.* Quantitative organic acid analysis in cerebrospinal fluid and plasma: Reference values in a pediatric population. *J. Chromatogr.* **617**(1), 1-10 (1993).
3. Jahn, M., Baynes, J.W., and Spiteller, G. The reaction of hyaluronic acid and its monomers, glucuronic acid and N-acetylglucosamine, with reactive oxygen species. *Carbohydr. Res.* **321**(3-4), 228-234 (1999).
4. Ahmed, M.U., Thorpe, S.R., and Baynes, J.W. Identification of N^ε-carboxymethyllysine as a degradation product of fructoselysine in glycosylated protein. *J. Biol. Chem.* **261**(11), 4889-4894 (1986).
5. Engelke, U.F., Zijlstra, F.S., Mochel, F., *et al.* Mitochondrial involvement and erythronic acid as a novel biomarker in transaldolase deficiency. *Biochim. Biophys. Acta.* **1802**(11), 1028-1035 (2010).

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.

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