# **PRODUCT** INFORMATION



## L-Folinic Acid (calcium salt hydrate)

Item No. 23833

Formal Name:	N-[4-[[[(6S)-2-amino-5-formyl- 3,4,5,6,7,8-hexahydro-4-oxo- 6-pteridinyl]methyl]amino] benzoyl]-L-glutamic acid, monocalcium salt, hydrate	0 0 0 0
Synonyms:	L-Folinate,	
	5-Formyltetrahydrofolate	
MF:	$C_{20}H_{21}N_7O_7 \bullet Ca [XH_2O]$	
FW:	511.5	
Purity:	≥98%	H <sub>2</sub> N N N • Ca <sup>2+</sup> [XH <sub>2</sub> O]
UV/Vis.:	λ <sub>max</sub> : 221, 287 nm	
Supplied as:	A crystalline 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-Folinic acid (calcium salt hydrate) is supplied as a crystalline solid. A stock solution may be made by dissolving the L-folinic acid (calcium salt hydrate) in water. The solubility of L-folinic acid (calcium salt hydrate) in water is approximately 0.3 mg/ml. We do not recommend storing the aqueous solution for more than one day.

#### Description

L-Folinic acid is a reduced folic acid and isomer of DL-folinic acid (Item No. 20383).<sup>1</sup> Formulations containing DL-folinic acid, a racemic mixture of D-folinic acid and L-folinic acid, that have been used to prevent toxicity following therapy with high-dose methotrexate, to enhance the antitumor activity of 5-fluorouracil, and as a folate supplement.<sup>2,3</sup> Clinical studies demonstrate that formulations containing L-folinic acid have similar efficacy and tolerability as those contianing D,L-folinic acid and have been used interchangeably for modification of antitumor activity of 5-fluorouracil, while D-folinic acid is inactive.<sup>1</sup>

#### References

- 1. Kovoor, P.A., Karim, S.M., and Marshall, J.L. Is levoleucovorin an alternative to racemic leucovorin? A literature review. Clin. Colorectal Cancer 8(4), 200-206 (2009).
- 2. Danenberg, P.V., Gustavsson, B., Johnston, P., et al. Folates as adjuvants to anticancer agents: Chemical rationale and mechanism of action. Crit. Rev. Oncol. Hematol. 106, 118-131 (2016).
- 3. Frye, R.E., Rossignol, D., Casanova, M.F., et al. A review of traditional and novel treatments for seizures in autism spectrum disorder: Findings from a systematic review and expert panel. Front. Public Health 1, 31 (2013).

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

#### SAFFTY 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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