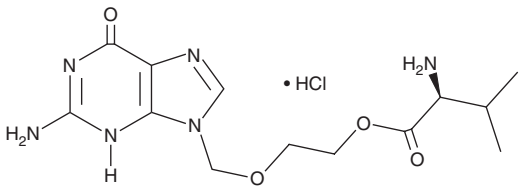
PRODUCT INFORMATION

L-Valacyclovir (hydrochloride)

Item No. 23801

CAS Registry No.:	124832-27-5
Formal Name:	2-[(2-amino-1,6-dihydro-6-oxo-9H-purin-9-yl)methoxy]ethyl ester, L-valine, monohydrochloride
Synonyms:	BW 256U, BW 256U87
MF:	$C_{13}H_{20}N_6O_4 \bullet HCl$
FW:	360.8
Purity:	≥98%
Supplied as:	A crystalline solid
Storage:	-20°C
Stability:	≥4 years



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

Laboratory Procedures

L-Valacyclovir (hydrochloride) is supplied as a solid. A stock solution may be made by dissolving the L-valacyclovir (hydrochloride) in the solvent of choice, which should be purged with an inert gas. L-Valacyclovir (hydrochloride) is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of L-valacyclovir (hydrochloride) in these solvents is approximately 3 and 10 mg/ml, respectively.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of L-valacyclovir (hydrochloride) can be prepared by directly dissolving the solid in aqueous buffers. The solubility of L-valacyclovir (hydrochloride) in PBS (pH 7.2) is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day

Description

L-Valacyclovir is the L-valyl prodrug of acyclovir (Item No. 14160), an antiviral compound. L-Valacyclovir inhibits herpes simplex virus type I (HSV-I) replication (IC_{50} = 0.84 µM in Vero cells).[1] It is more potent than the stereoisomer D-valacyclovir but less potent than acyclovir *in vitro*, however, it is rapidly converted to acyclovir *in vivo*.[2] Formulations containing L-valacyclovir have been used in the treatment of HSV-1 infections.

References

1. Beauchamp, L.M., Orr, G.F., de Miranda, P., *et al.* Amino acid ester prodrugs of acyclovir. *Antivir. Chem. Chemother.* **3(3)**, 157-164 (1992).
2. Beutner, K.R. Valacyclovir: A review of its antiviral activity, pharmacokinetic properties, and clinical efficacy. *Antiviral Res.* **28(4)**, 281-290 (1995).

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