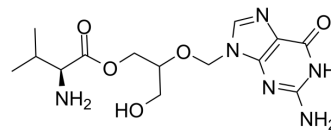


Valganciclovir

Cat. No.:	HY-A0032
CAS No.:	175865-60-8
Molecular Formula:	C ₁₄ H ₂₂ N ₆ O ₅
Molecular Weight:	354.36
Target:	CMV
Pathway:	Anti-infection
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description

Valganciclovir, the L-valyl ester of ganciclovir, is actually a prodrug for ganciclovir. Valganciclovir is an antiviral medication used to treat cytomegalovirus infections. IC50 Value: Target: CMV in vitro: In cell culture model systems using Caco-2 cells for PEPT1 and SKPT cells for PEPT2, valganciclovir inhibited glycylosarcosine transport mediated by PEPT1 and PEPT2 with K(i) values (inhibition constant) of 1.68 +/- 0.30 and 0.043 +/- 0.005 mM, respectively. The inhibition by valganciclovir was competitive in both cases [1]. in vivo: 37 patients were enrolled; 19 patients received treatment with VGV and 18 patients received treatment with GCV. The VGV was not inferior in efficacy to GCV as pre-emptive therapy, with rates of viral clearance at 28 days of 89.5% and 83%, respectively (P-value for non-inferiority = 0.030). Toxicities were similar between the 2 arms. No patients developed CMV disease [2]. Patients being treated with an alemtuzumab-containing regimen received prophylaxis with either valaciclovir 500 mg orally daily or valganciclovir 450 mg orally twice daily. None of the 20 patients randomized to valganciclovir experienced CMV reactivation (P = .004) [3].

REFERENCES

- [1]. Sugawara M, et al. Transport of valganciclovir, a ganciclovir prodrug, via peptide transporters PEPT1 and PEPT2. J Pharm Sci. 2000 Jun;89(6):781-9.
- [2]. Chawla JS, et al. Oral valganciclovir versus ganciclovir as delayed pre-emptive therapy for patients after allogeneic hematopoietic stem cell transplant: a pilot trial (04-0274) and review of the literature. Transpl Infect Dis. 2012 Jun;14(3):259-67.
- [3]. O'Brien S, et al. Valganciclovir prevents cytomegalovirus reactivation in patients receiving alemtuzumab-based therapy. Blood. 2008 Feb 15;111(4):1816-9.

Caution: Product has not been fully validated for medical applications. For research use only.

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