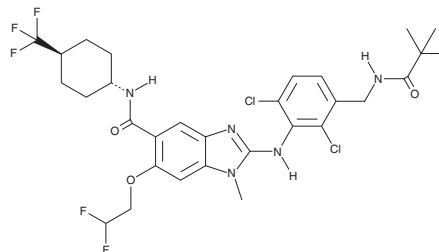


PRODUCT INFORMATION



Vipoglanstat Item No. 37925

CAS Registry No.: 1360622-01-0
Formal Name: 2-[[[2,6-dichloro-3-[[[2,2-dimethyl-1-oxopropyl]amino]methyl]phenyl]amino]-6-(2,2-difluoroethoxy)-1-methyl-N-[trans-4-(trifluoromethyl)cyclohexyl]-1H-benzimidazole-5-carboxamide
Synonyms: BI 1029539, GS-248, OX-MPI
MF: C₃₀H₃₄Cl₂F₅N₅O₃
FW: 678.5
Purity: ≥98%
Supplied as: A 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

Vipoglanstat is supplied as a solid. A stock solution may be made by dissolving the vipoglanstat in the solvent of choice, which should be purged with an inert gas. Vipoglanstat is slightly soluble (0.1-1 mg/ml) in acetonitrile and sparingly soluble (1-10 mg/ml) in DMSO.

Description

Vipoglanstat is an inhibitor of microsomal prostaglandin E synthase-1 (mPGES-1; IC₅₀ = ≤0.5 nM in isolated human whole blood).¹ It reduces LPS-induced increases in the influx of neutrophils and levels of cytokines in bronchoalveolar lavage fluid (BALF), as well as the expression of *PTGES*, the gene encoding mPGES-1, *Cox2*, and *Icam1* in the lung parenchyma, in a human *PTGES* knock-in mouse model of acute lung injury when administered at a dose of 30 mg/kg.² Vipoglanstat (30 mg/kg) also reduces the lung injury score and expression of *PTGES* and *Nos2*, the gene encoding inducible nitric oxide synthase (iNOS), as well as increases survival, in a human *PTGES* knock-in mouse model of sepsis induced by cecal ligation and puncture. It reduces status epilepticus-induced increases in brain capillary mPGES-1 and P-glycoprotein levels in a human *PTGES* knock-in mouse model of kainic acid-induced status epilepticus when administered at doses of 10, 30, and 100 mg/kg.³

References

1. Tornling, G., Edenius, C., Pauling, J.D., *et al.* A phase 2 trial investigating the efficacy and safety of the mPGES-1 inhibitor vipoglanstat in systemic sclerosis-related Raynaud's. *Rheumatology (Oxford)* (2024).
2. Gurusamy, M., Nasser, S., Rampa, D.R., *et al.* Inhibition of microsomal prostaglandin E synthase-1 ameliorates acute lung injury in mice. *J. Transl. Med.* **19**(1), 340 (2021).
3. Soldner, E.L.B., Hartz, A.M.S., Akanuma, S.I., *et al.* Inhibition of human microsomal PGE2 synthase-1 reduces seizure-induced increases of P-glycoprotein expression and activity at the blood-brain barrier. *FASEB J.* **33**(12), 13966-13981 (2019).

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.

WARRANTY AND LIMITATION OF REMEDY

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