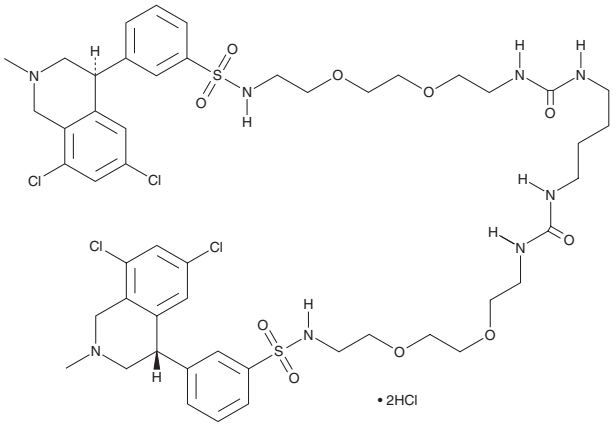
PRODUCT INFORMATION

Tenapanor (hydrochloride)

Item No. 32875

CAS Registry No.: 1234365-97-9
Formal Name: 17-[[[3-[(4S)-6,8-dichloro-1,2,3,4-tetrahydro-2-methyl-4-isoquinolinyl] phenyl]sulfonyl]amino]-N-[2-[2-[2-[[[3-[(4S)-6,8-dichloro-1,2,3,4-tetrahydro-2-methyl-4-isoquinolinyl] phenyl]sulfonyl]amino]ethoxy]ethoxy] ethyl]-8-oxo-12,15-dioxa-2,7,9-triazaheptadecanamide, dihydrochloride
Synonym: AZD 1722
MF: $C_{50}H_{66}Cl_4N_8O_{10}S_2$ • 2HCl
FW: 1,218.0
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

Tenapanor (hydrochloride) is supplied as a crystalline solid. A stock solution may be made by dissolving the tenapanor (hydrochloride) in the solvent of choice, which should be purged with an inert gas. Tenapanor (hydrochloride) is soluble in DMSO and water. We do not recommend storing the aqueous solution for more than one day.

Description

Tenapanor is an orally bioavailable inhibitor of sodium-hydrogen exchanger 3 (NHE-3; IC_{50} = 10 nM for the recombinant rat protein).[1] Tenapanor (10 µM) inhibits intestinal fluid absorption in mouse jejunum, but not distal colon, in a closed intestine loop assay.[2] It also lowers both the sodium and phosphate urinary-to-dietary ratio in a dose-dependent manner in rats.[1] Tenapanor (5 mg/kg) reverses decreases in stool pellet numbers and water content induced by loperamide (Item No. 14875) and prevents loperamide-induced constipation in mice.[2] Formulations containing tenapanor have been used in the treatment of irritable bowel syndrome with constipation.

References

1. Labonté, E.D., Carreras, C.W., Leadbetter, M.R., *et al.* Gastrointestinal inhibition of sodium-hydrogen exchanger 3 reduces phosphorus absorption and protects against vascular calcification in CKD. *J. Am. Soc. Nephrol.* **26(5)**, 1138-1149 (2015).
2. Haggie, P.M., Cil, O., Lee, S., *et al.* SLC26A3 inhibitor identified in small molecule screen blocks colonic fluid absorption and reduces constipation. *JCI Insight* **3(14)**, e121370 (2018).

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