

PRODUCT INFORMATION



MGL-3196

Item No. 23845

CAS Registry No.: 920509-32-6
Formal Name: 2-[3,5-dichloro-4-[[1,6-dihydro-5-(1-methylethyl)-6-oxo-3-pyridazinyl]oxy]phenyl]-2,3,4,5-tetrahydro-3,5-dioxo-1,2,4-triazine-6-carbonitrile

Synonyms: Resmetirom, VIA-3196

MF: C₁₇H₁₂Cl₂N₆O₄

FW: 435.2

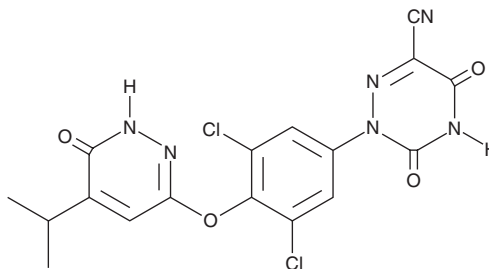
Purity: ≥95%

UV/Vis.: λ_{max}: 306 nm

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

MGL-3196 is supplied as a crystalline solid. A stock solution may be made by dissolving the MGL-3196 in the solvent of choice. MGL-3196 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of MGL-3196 in ethanol is approximately 1 mg/ml and approximately 20 mg/ml in DMSO and DMF.

Description

MGL-3196 is an agonist of thyroid hormone receptor β (TR β ; EC₅₀s = 0.21 and 3.74 μ M for TR β and TR α , respectively).¹ It also inhibits ether-a-go-go-related gene (ERG) potassium channels (IC₅₀ = 30 μ M). MGL-3196 is a liver-directed compound, with a liver to plasma ratio of 8:1 in mice with diet-induced obesity (DIO), which reduces the likelihood of adverse effects from systemic exposure. It does not affect the expression of α -myosin heavy chain (α -MHC) in a rat model of hypothyroidism, an effect mediated by TR α , indicating low potential for cardiac adverse effects. MGL-3196 lowers non-HDL cholesterol and liver triglycerides without affecting thyroid stimulating hormone (Tsh) levels in rat and rabbit models of hypercholesterolemia. It also lowers plasma glucose levels and improves insulin sensitivity in DIO mice.

Reference

1. Kelly, M.J., Pietranico-Cole, S., Larigan, J.D., *et al.* Discovery of 2-[3,5-dichloro-4-(5-isopropyl-6-oxo-1,6-dihydropyridazin-3-yloxy)phenyl]-3,5-dioxo-2,3,4,5-tetrahydro[1,2,4]triazine-6-carbonitrile (MGL-3196), a highly selective thyroid hormone receptor β agonist in clinical trials for the treatment of dyslipidemia. *J. Med. Chem.* **57**(10), 3912-3923 (2014).

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.

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