

Product Datasheet

MGL-3196

Catalog No. **BP-02103** · CAS **920509-32-6** · Form **free base** · Physical state **other** · Version **1.0** · Revision **2026-09-14**

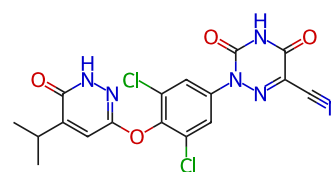
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Target Thyroid Hormone Receptor	Research area Cardiovascular Disease; Endocrinology
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Molecular formula **C₁₇H₁₂Cl₂N₆O₄**

Molecular weight **435.2210**

STRUCTURE



DESCRIPTION

Resmetirom (MGL-3196) is a highly selective thyroid hormone receptor β (THR- β) agonist with an EC₅₀ value of 0.21 μ M.

BIOLOGICAL ACTIVITY

In Vitro

Resmetirom (MGL-3196) is 28-fold selective for THR- β (EC₅₀=0.21 μ M) over THR- α (EC₅₀=3.74 μ M) in a functional assay. Resmetirom (MGL-3196) shows an IC₂₀ of roughly 30 μ M for blockage of the hERG channel. The IC₅₀ for CYP3A4/5 and for CYP2C19 is >50 μ M, and there is only weak inhibition (roughly 22 μ M) of CYP2C9.

In Vivo

Resmetirom (MGL-3196) exhibits good exposures and reasonable oral bioavailability in rats. The volume of distribution and clearance are both low. Dose proportional increases in exposure are observed for a suspension of Resmetirom (MGL-3196) given orally to DIO mice[1]. In animals treated with Resmetirom (MGL-3196) there is a reduction in cholesterol and in liver size, which is secondary to reduction of liver TG. There is no effect on bone mineral density (BMD) or heart or kidney size in Resmetirom (MGL-3196) treated animals.

SOLUBILITY

Soluble in DMSO

In vitro DMSO : 70 mg/mL

REFERENCES

[1]. Kelly MJ, 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. 2014 May 22;57(10):3912-23.

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