

# PRODUCT INFORMATION



## Elafibranor

Item No. 23508

CAS Registry No.: 923978-27-2

Formal Name: 2-[2,6-dimethyl-4-[(1E)-3-[4-(methylthio)phenyl]-3-oxo-1-propen-1-yl]phenoxy]-2-methyl-propanoic acid

Synonym: GFT505

MF:  $C_{22}H_{24}O_4S$

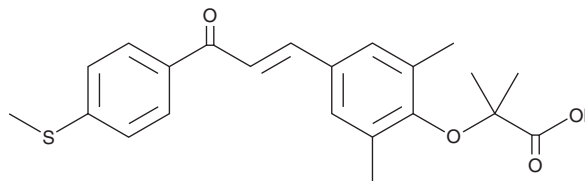
FW: 384.5

Purity:  $\geq 98\%$

Supplied as: A solid

Storage:  $-20^{\circ}\text{C}$

Stability:  $\geq 4$  years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

### Laboratory Procedures

Elafibranor is supplied as a solid. A stock solution may be made by dissolving the elafibranor in the solvent of choice, which should be purged with an inert gas. Elafibranor is slightly soluble in DMSO and methanol.

### Description

Elafibranor is an agonist of the peroxisome proliferator-activated receptors (PPAR)  $\alpha$  and  $\delta$ .<sup>1</sup> It increases HDL secretion and expression of the lipid-related genes *ABCA1*, *PLIN-2*, and *ABHD5* in Caco-2/TC7 cells in a PPAR $\alpha$ -dependent manner. Elafibranor (10 mg/kg) decreases levels of plasma triglycerides and total cholesterol while increasing plasma HDL and expression of *Acox1*, a PPAR $\alpha$  target gene, in the liver of ApoE2-KI wild-type, but not PPAR $\alpha$  knockout, mice fed a Western diet. However, PPAR $\alpha$  knockout mice exhibit a decrease in plasma total and non-HDL cholesterol levels, indicating PPAR $\delta$  has a role in these functions. Elafibranor (30 mg/kg) reduces diet-induced macro- and micro-steatosis in a PPAR $\alpha$ -deficient mouse model of non-alcoholic steatohepatitis.<sup>2</sup> It also reduces cholesterol and triglyceride accumulation as well as macrovesicular steatosis in the liver of insulin-resistant *db/db* mice fed the methionine-choline deficient (MCD) diet. Formulations containing elafibranor are under clinical investigation for the treatment of non-alcoholic steatohepatitis.

### References

1. Colin, S., Briand, O., Touche, V., *et al.* Activation of intestinal peroxisome proliferator-activated receptor- $\alpha$  increases high-density lipoprotein production. *Eur. Heart J.* **34**(32), 2566-2574 (2013).
2. Staels, B., Rubenstrunk, A., Noel, B., *et al.* Hepatoprotective effects of the dual peroxisome proliferator-activated receptor  $\alpha/\delta$  agonist, GFT505, in rodent models of nonalcoholic fatty liver disease/nonalcoholic steatohepatitis. *Hepatology* **58**(6), 1941-1952 (2013).

#### 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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