

## Mipomersen

|                   |   |
|-------------------|---|
| Cat. No.:         | HY-148647   |
| CAS No.:          | 1000120-98-8  |
| Molecular Weight: | 7177  |
| Target:           | HCV   |
| Pathway:          | Anti-infection  |
| Storage:          | Please store the product under the recommended conditions in the Certificate of Analysis. |

# Mipomersen

### SOLVENT & SOLUBILITY

#### In Vitro

H<sub>2</sub>O : ≥ 100 mg/mL (13.93 mM)  
 \* "≥" means soluble, but saturation unknown.

| Solvent | Mass Concentration | 1 mg      | 5 mg      | 10 mg     |
|---------|--------------------|-----------|-----------|-----------|
|         |                    | 1 mM      | 0.1393 mL | 0.6967 mL |
|         | 5 mM               | 0.0279 mL | 0.1393 mL | 0.2787 mL |
|         | 10 mM              | 0.0139 mL | 0.0697 mL | 0.1393 mL |

Please refer to the solubility information to select the appropriate solvent.

### BIOLOGICAL ACTIVITY

#### Description

Mipomersen (ISIS 301012 free base) is an antisense oligonucleotide inhibitor of apolipoprotein B (apoB). Mipomersen has anti-HCV effect and reduces the infectivity of the HCV. Mipomersen can be used for the research of homozygous familial hypercholesterolemia (HoFH)<sup>[1][2]</sup>.

#### In Vitro

Mipomersen (800 and 1000 µg/mL; 72 hours) reduces 80%-85% intracellular HCV RNA in Huh7/CD81 WT cells with HCVcc (JFH1) infection<sup>[2]</sup>.  
 MCE has not independently confirmed the accuracy of these methods. They are for reference only.

#### In Vivo

Mipomersen (25 mg/kg; i.p., twice weekly for 11 weeks) affects levels of h-apoB, h-apoB-100, Lp(a) and OxPL/h-apoB<sup>[1]</sup>.  
 MCE has not independently confirmed the accuracy of these methods. They are for reference only.

|               |   |
|---------------|---|
| Animal Model: | Transgenic mice overexpressing human apolipoprotein B-100 (h-apoB mice) or h-apoB-100 plus human apo(a) (Lp(a) mice) <sup>[1]</sup> |
| Dosage:       | 25 mg/kg  |

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|                 |   |
|-----------------|---|
| Administration: | Intraperitoneal injection; 25 mg/kg, twice weekly for 11 weeks                            |
| Result:         | Time-dependently reduced the level of h-apoB-100 in Lp(a) mice and h-apoB in h-apoB mice. |

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## REFERENCES

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- [1]. Merki E, et al. Antisense oligonucleotide directed to human apolipoprotein B-100 reduces lipoprotein(a) levels and oxidized phospholipids on human apolipoprotein B-100 particles in lipoprotein(a) transgenic mice. *Circulation*. 2008 Aug 12;118(7):743-53.
- [2]. Schaefer EA, et al. Apolipoprotein B100 is required for hepatitis C infectivity and Mipomersen inhibits hepatitis C. *World J Gastroenterol*. 2016 Dec 7;22(45):9954-9965.
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**Caution: Product has not been fully validated for medical applications. For research use only.**

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