Dasabuvir sodium

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| Cat. No.: CAS No.: | HY-13998A 1132940-11-4 | |
|-----------------------|---|--|
| Molecular Formula: | C ₂₆ H ₂₇ N ₃ NaO ₅ S | Na O N O N O N O N O N O N O N O N |
| Molecular Weight: | 516.56 | |
| Target: | HCV; DNA/RNA Synthesis | |
| Pathway: | Anti-infection; Cell Cycle/DNA Damage | |
| Storage: | Please store the product under the recommended conditions in the Certificate of Analysis. | |

| BIOLOGICAL ACTIVITY | | |
|---------------------------|---|--|
| Description | Dasabuvir (ABT-333) sodium is a nonnucleoside hepatitis C virus (HCV) polymerase inhibitor. Dasabuvir sodium inhibits RNA- dependent RNA polymerase encoded by the HCV NS5B gene. Dasabuvir sodium inhibits genotype 1a (strain H77) and 1b (strain Con1) replicons, with EC ₅₀ values of 7.7 and 1.8 nM, respectively ^[1] . | |
| IC ₅₀ & Target | IC50: 2.2 ± 0.3 nM (HCV genotype 1b N), 2.8 ± 0.2 nM (HCV genotype 1a H77), 3.1 ± 0.21 nM (HCV genotype 1b BK), 0.7 ± 1.4 nM (HCV genotype 1b Con1) ^[1] | |
| In Vitro | Dasabuvir (ABT-333) sodium is at least 7,000-fold selective for the inhibition of HCV genotype 1 polymerases over human/mammalian polymerases ^[1] . Dasabuvir sodium inhibits the polymerase enzymatic activity of genotype 1 laboratory strain enzymes (H77, BK, N, and Con1 strains), as well as enzymes produced from polymerase genes from HCV genotype 1-infected subjects, with IC ₅₀ s between 2.2 and 10.7 nM ^[1] . Dasabuvir sodium inhibits replication of HCV subgenomic replicons in cell culture assays, with EC ₅₀ values of 7.7 and 1.8 nM against genotype 1a (H77) and 1b (Con1), respectively. In the presence of 40% human plasma, there is a 12- to 13-fold decrease in inhibitory potency, yielding EC ₅₀ s of 99 and 21 nM for HCV genotype 1a (H77) and 1b (Con1) replicons, respectively ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only. | |

CUSTOMER VALIDATION

- Proc Natl Acad Sci U S A. 2017 Feb 21;114(8):1922-1927.
- Antimicrob Agents Chemother. 2019 May 24;63(6). pii: e00003-19.
- Antiviral Res. 2019 Oct;170:104570.
- Antiviral Res. 2017 Mar;139:18-24.
- Sci Rep. 2020 Feb 26;10(1):3521.

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REFERENCES

[1]. Kati W, et al. In vitro activity and resistance profile of dasabuvir, a nonnucleoside hepatitis C virus polymerase inhibitor. Antimicrob Agents Chemother. 2015 Mar;59(3):1505-11.

Caution: Product has not been fully validated for medical applications. For research use only.

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