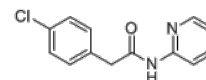


Product Name : TGP-29b-066
Cat. No. : PC-20105
CAS No. : 349429-86-3
Molecular Formula : C₁₃H₁₁ClN₂O
Molecular Weight : 246.69
Target : MicroRNA
Solubility : 10 mM in DMSO



Biological Activity

TGP-29b-066 (Targapremir-29b-066) is a specific small-molecule **miR-29b** inhibitor that targets miR29b hairpin precursor (pre-miR-29b), selectivity and effectively decreases miR-29b expression levels in C2C12 myoblast, attenuates muscle atrophy in vitro and in vivo.

TGP-29b-066 specifically inhibits mature miR-29b generation in C2C12 myotubes (24 h) with IC₅₀ of 30 uM.

TGP-29b-066 significantly attenuates muscle atrophy induced by Ang II in C2C12 myotubes, also increases the diameter of myotube and decreases Atrogin-1 and MuRF-1 expression levels, while does not affect C2C12 differentiation.

TGP-29b-066 ameliorates muscle atrophy in Ang II-induced muscle atrophy mice model, reduces the elevation of Atrogin-1 and MuRF-1.

TGP-29b-066 also attenuates the reduction of the cross-sectional area of myofibers, reduces cell apoptosis and autophag in Ang II-treated mice.

TGP-29b-066 represses miR-29b generation via interfering with the stability of pre-miR-29b, directly binds to pre-miR-29b-1/2, which in turn reduced pre-miR-29b-1/2 stability.

TGP-29b-066 also shows a longer inhibitory effect than antisense oligodeoxynucleotides of miR-29b (ASO-miR-29b).

References

Liu Q, et al. *Mol Ther Nucleic Acids*. 2023 Feb 4;31:527-540.

Caution: Product has not been fully validated for medical applications. Lab Use Only!

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