MCE MedChemExpress

Product Data Sheet

360A

 Cat. No.:
 HY-15595

 CAS No.:
 794458-56-3

 Molecular Formula:
 $C_{27}H_{23}N_5O_2$

Molecular Weight: 449.5

Target: G-quadruplex; Telomerase

Pathway: Cell Cycle/DNA Damage

Storage: Please store the product under the recommended conditions in the Certificate of

Analysis.

BIOLOGICAL ACTIVITY

Description 360A is a selective stabilizer of G-quadruplex, and also inhibits telomerase activity with an IC₅₀ of 300 nM for telomerase in TRAP-G4 assay.

IC50: 300 nM (Telomerase)^[1]

G-quadruplex^[1]

In Vitro 360A inhibits telomerase activity and stabilizes G-quadruplex, with an IC₅₀ of 300 nM for telomerase in TRAP-G4 assay. 360A reduces the viability of glioma cell lines, such as T98G, CB193, U118-MG, SAOS-2 and Primary astrocytes, with IC₅₀s of 4.8 ±

reduces the viability of glioma cell lines, such as 1986, CB193, U118-MG, SAOS-2 and Primary astrocytes, with IC₅₀s of 4.8 \pm 1.1 μ M, 3.9 \pm 0.4 μ M, 8.4 \pm 0.5 μ M, >15 μ M and 17.4 \pm 1.2 μ M, respectively^[1]. 360A causes Rad51-dependent telomere aberrations preferentially involving the lagging strand telomeres, including telomere losses or telomere doublets, and induces DNA-PKcs-dependent sister telomere fusions^[2].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

PROTOCOL

Cell Assay [1]

The cell proliferation reagent WST-1 assay is performed. In brief, cells are seeded at various densities, depending on cell type $(0.25\text{-}4\times10^3\text{ cells/well in }100\,\mu\text{L}$ complete medium), in 96-well culture plates and treated with various concentrations $(0.1\text{-}20\,\mu\text{M})$ of 360A or the corresponding concentrations of DMSO (control wells) for 3 or 7 days at 37°C in an atmosphere containing 5% CO₂. For 7-day assays, the medium is changed on day 3. Experiments are performed in triplicate^[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

CUSTOMER VALIDATION

- Nucleic Acids Res. 2022 May 6;50(8):4574-4600.
- Cell Death Dis. 2021 Oct 25;12(11):999.

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REFERENCES

- [1]. Pennarun G, et al. Apoptosis related to telomere instability and cell cycle alterations in human glioma cells treated by new highly selective G-quadruplex ligands. Oncogene. 2005 Apr 21;24(18):2917-28.
- [2]. Gauthier LR, et al. Rad51 and DNA-PKcs are involved in the generation of specific telomere aberrations induced by the quadruplex ligand 360A that impair mitotic cell progression and lead to cell death. Cell Mol Life Sci. 2012 Feb;69(4):629-40.

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

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