# PI3Kα-IN-8

**Cat. No.:** HY-147983

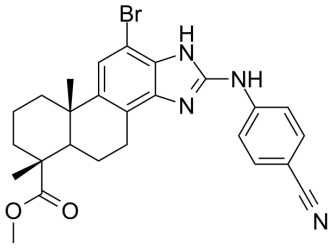
**Molecular Formula:** $C_{26}H_{27}BrN_4O_2$

**Molecular Weight:** 507.42

**Target:** PI3K; Reactive Oxygen Species; Apoptosis

**Pathway:** PI3K/Akt/mTOR; Immunology/Inflammation; Metabolic Enzyme/Protease; NF-κB; Apoptosis

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




## BIOLOGICAL ACTIVITY

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| **Description** | PI3Kα-IN-8 (Compound 9g) is a selective PI3Kα inhibitor with an $IC_{50}$ of 0.012 μM. PI3Kα-IN-8 increases intracellular reactive oxygen species level, decreases mitochondrial membrane potential and induces apoptosis[1]. | | | |
| **$IC_{50}$ & Target** | PI3Kα<br>0.012 μM ($IC_{50}$) | PI3Kδ<br>0.11 μM ($IC_{50}$) | PI3Kγ<br>0.18 μM ($IC_{50}$) | PI3Kβ<br>0.21 μM ($IC_{50}$) |
| **In Vitro** | PI3Kα-IN-8 (Compound 9g) exhibits anticancer activity with $IC_{50}$ values of 0.18 ± 0.03, 0.43 ± 0.05, 0.71 ± 0.08 and 0.63 ± 0.09 μM against HCT-116, MCF-7, HeLa and HepG2 cells, respectively[1].<br>PI3Kα-IN-8 upregulates Bax and cleaved caspase-3/9 levels, and downregulates Bcl-2 level[1].<br>MCE has not independently confirmed the accuracy of these methods. They are for reference only. | | | |

## REFERENCES

[1]. Yang YQ, et al. Synthesis and anticancer evaluation of novel 1H-benzo[d]imidazole derivatives of dehydroabietic acid as PI3Kα inhibitors. Bioorg Chem. 2020 Jul;100:103845.



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