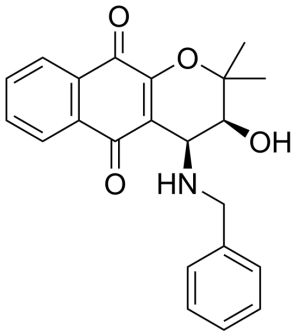
CAY10581

Cat. No.:	HY-113568
CAS No.:	1018340-07-2
Molecular Formula:	$C_{22}H_{21}NO_4$
Molecular Weight:	363.41
Target:	Indoleamine 2,3-Dioxygenase (IDO)
Pathway:	Metabolic Enzyme/Protease
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	CAY10581, a pyranonaphthoquinone derivative, is a highly specific and reversible uncompetitive IDO Inhibitor with an IC_{50} of 55 nM[1][2].
IC_{50} & Target	IDO 55 nM (IC_{50})
In Vitro	CAY10581 (100 nM; 24 h) abrogates the growth inhibition by IFN-gamma in MSCs[1]. CAY10581 (compound 36) demonstrates minimal impact on T-REx cells viability at 100 μM after 24 h[2]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Cell Viability Assay[1]

Cell Line:	Mesenchymal stem cells (MSCs)
Concentration:	100 nM
Incubation Time:	24 h post-treatment
Result:	Abrogated the growth inhibition by IFN-gamma (50 ng/ml) in MSCs.

REFERENCES

[1]. Sanjeev Kumar, et al. Indoleamine 2,3-dioxygenase is the anticancer target for a novel series of potent naphthoquinone-based inhibitors. J Med Chem. 2008 Mar 27;51(6):1706-18.

[2]. Siddaraju V Boregowda, et al. A Clinical Indications Prediction Scale Based on TWIST1 for Human Mesenchymal Stem Cells. EBioMedicine. 2015 Dec 24;4:62-73.

[3]. Sanjeev Kumar, et al. Indoleamine 2,3-dioxygenase is the anticancer target for a novel series of potent naphthoquinone-based inhibitors. J Med Chem. 2008 Mar 27;51(6):1706-18.

[4]. Siddaraju V Boregowda, et al. A Clinical Indications Prediction Scale Based on TWIST1 for Human Mesenchymal Stem Cells. EBioMedicine. 2015 Dec 24;4:62-73.

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

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