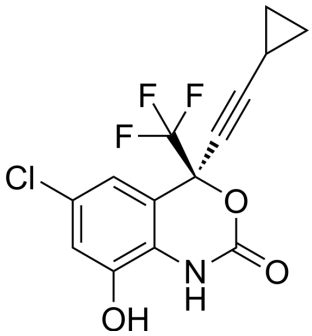
8-Hydroxyefavirenz

Cat. No.:	HY-137397
CAS No.:	205754-33-2
Molecular Formula:	$C_{14}H_9ClF_3NO_3$
Molecular Weight:	331.67
Target:	Apoptosis; JNK
Pathway:	Apoptosis; MAPK/ERK Pathway
Storage:	Powder -20°C 3 years In solvent -80°C 6 months -20°C 1 month



BIOLOGICAL ACTIVITY

Description

8-Hydroxyefavirenz (8-OH-EFV) is a primary metabolite of (HY-10572). 8-Hydroxyefavirenz induces apoptosis via a JNK- and BimEL-dependent mechanism in primary human hepatocytes. 8-Hydroxyefavirenz can be used in research of cancer[1]. 8-Hydroxyefavirenz is a click chemistry reagent, it contains an Alkyne group and can undergo copper-catalyzed azide-alkyne cycloaddition (CuAAc) with molecules containing Azide groups.

In Vitro

8-Hydroxyefavirenz (8-OH-EFV; 1-10 μM; 3-24 h; primary human hepatocytes) increases cell death in a time- and concentration-dependent manner and induces caspase-3 activity beginning at 6 h[1].
8-Hydroxyefavirenz (1-10 μM; 6-24 h) stimulates mitochondria ROS production in primary human hepatocytes[1].
8-Hydroxyefavirenz (10 μM; 3-24 h) activates JNK and increases the ratio of phosphorylated JNK to total JNK by 4.2-fold. 8-Hydroxyefavirenz increases the mRNA and protein expression of BimEL[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Cell Viability Assay[1]

Cell Line:	Primary human hepatocytes
Concentration:	1 and 10 μM
Incubation Time:	3, 6, 12 and 24 hours
Result:	Increased cell death in a time- and concentration-dependent manner and increased cell death by 3.4-fold at 6 h.

Western Blot Analysis[1]

Cell Line:	Primary human hepatocytes
Concentration:	1 and 10 μM
Incubation Time:	3, 6, 12 and 24 hours
Result:	Increased the expression of cleaved caspase-3 in a time- and concentration-dependent manner.

Western Blot Analysis[1]

Cell Line:	Primary human hepatocytes
Concentration:	1 and 10 μM
Incubation Time:	3, 6, 12 and 24 hours
Result:	Increased the phosphorylation of JNK and increased the mRNA and protein expression of BimEL.

REFERENCES

[1]. Bumpus NN. Efavirenz and 8-hydroxyefavirenz induce cell death via a JNK- and BimEL-dependent mechanism in primary human hepatocytes. Toxicol Appl Pharmacol. 2011 Dec 1;257(2):227-34.

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