Dihydroorotate Dehydrogenase

DHODH

Dihydroorotate dehydrogenase (DHODH) is the fourth enzyme in the de novo pyrimidine biosynthesis pathway, serving as the catalyst to oxidize the dihydroorotate to orotic acid in the biosynthesis of uridine monophosphate (UMP). DHODH is a known target for autoimmune diseases as well as an important target for malaria.

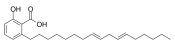
Based on localization and electron acceptor, DHODHs have classified into two families: Family 1 members are soluble proteins localized to the cytosol, while family 2 members are membrane proteins localized to the inner mitochondrial membrane. Family 1 is further subdivided into family 1A and family 1B, which use fumarate and NAD^+ (respectively) as electron acceptors. Family 2 DHODH enzymes use respiratory quinones as electron acceptors.

Dihydroorotate Dehydrogenase Inhibitors

(E/Z)-Ginkgolic acid C17:2

Cat. No.: HY-N7961

(E/Z)-Ginkgolic acid C17:2, isolated from Ginkgo biloba, can bind with human **dihydroorotate dehydrogenase (DHODH)** tightly.

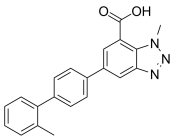


Purity: >98%
Clinical Data: No Development Reported
Size: 5 mg, 10 mg, 25 mg

AG-636

Cat. No.: HY-137463

AG-636 is a potent, reversible, selective and orally active **dihydroorotate dehydrogenase (DHODH)** inhibitor with an **IC_{50}** of 17 nM. AG-636 has strong anticancer effects.



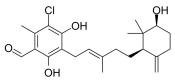
Purity: 98.02%
Clinical Data: No Development Reported
Size: 10 mM × 1 mL, 5 mg, 10 mg, 25 mg, 50 mg, 100 mg

Ascochlorin A

(Acremochlorin A)

Cat. No.: HY-139632

Ascochlorin A is a novel and potent **hDHODH** inhibitor (K_D = 3.29 μM) for treatment of triple-negative breast cancer.

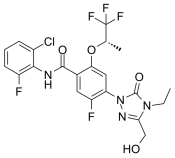


Purity: >98%
Clinical Data: No Development Reported
Size: 1 mg, 5 mg

BAY-2402234

Cat. No.: HY-112645

BAY-2402234 is a selective dihydroorotate dehydrogenase **(DHODH)** inhibitor for the treatment of myeloid malignancies.

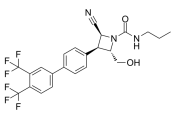


Purity: 99.95%
Clinical Data: Phase 1
Size: 10 mM × 1 mL, 5 mg, 10 mg, 25 mg, 50 mg, 100 mg

BRD9185

Cat. No.: HY-120924

BRD9185 is a **Dihydroorotate dehydrogenase (DHODH)** inhibitor, with an **EC_{50}** of 16 nM against multidrug-resistant blood-stage parasites in vitro and is curative after just three doses in a P. berghei mouse model.



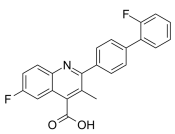
Purity: >98%
Clinical Data: No Development Reported
Size: 1 mg, 5 mg

Brequinar

(DUP785; NSC 368390)

Cat. No.: HY-108325

Brequinar (DUP785) is a potent inhibitor of **dihydroorotate dehydrogenase (DHODH)** with an **IC_{50}** of 5.2 nM for **human DHODH**. Brequinar has potent activities against a broad spectrum of viruses. Brequinar also has an anti-**SARS2** activity.

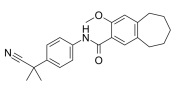


Purity: 99.75%
Clinical Data: Phase 2
Size: 10 mM × 1 mL, 5 mg, 10 mg

CHIKV-IN-2

Cat. No.: HY-132174

CHIKV-IN-2 is a potent inhibitor against **Chikungunya virus (CHIKV)**, with excellent cellular antiviral activity (**EC_{90}**=270 nM) and improved liver microsomal stability.

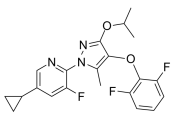


Purity: 98.15%
Clinical Data: No Development Reported
Size: 10 mM × 1 mL, 5 mg, 10 mg, 25 mg, 50 mg, 100 mg

DHODH-IN-1

Cat. No.: HY-135282

DHODH-IN-1 (compound 18d) is a potent **Dihydroorotate Dehydrogenase (DHODH)** inhibitor with an **IC_{50}** of 25 nM. DHODH-IN-1 is an inhibitor of pyrimidine biosynthesis pathway.

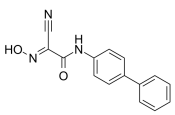


Purity: >98%
Clinical Data: No Development Reported
Size: 1 mg, 5 mg

DHODH-IN-11

Cat. No.: HY-135675

DHODH-IN-11 (Compound 14b) is a Leflunomide derivative and a weak **dihydroorotate dehydrogenase (DHODH)** inhibitor with a **pK_a** of 5.03.

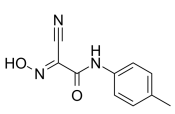


Purity: 99.94%
Clinical Data: No Development Reported
Size: 5 mg, 10 mg, 25 mg, 50 mg, 100 mg

DHODH-IN-12

Cat. No.: HY-135676

DHODH-IN-12 (Compound 12b) is a Leflunomide derivative and a weak **dihydroorotate dehydrogenase (DHODH)** inhibitor with a **pK_a** of 5.07.



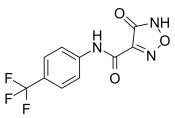
Purity: >98%
Clinical Data: No Development Reported
Size: 1 mg, 5 mg

Tel: 609-228-6898 Fax: 609-228-5909 Email: sales@MedChemExpress.com

DHODH-IN-13

Cat. No.: HY-135677

DHODH-IN-13 (Compound 7a) is a hydroxyfurazan analog of A771726. DHODH-IN-13 is a **dihydroorotate dehydrogenase (DHODH)** inhibitor with an IC_{50} of 4.3 μM for **rat liver DHODH**. DHODH-IN-13 can be used for rheumatoid arthritis.

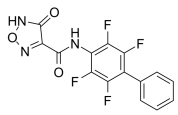


Purity: >98%
Clinical Data: No Development Reported
Size: 1 mg, 5 mg

DHODH-IN-14

Cat. No.: HY-135678

DHODH-IN-14 (Compound 7l) is a hydroxyfurazan analog of A771726. DHODH-IN-14 is a **dihydroorotate dehydrogenase (DHODH)** inhibitor with an IC_{50} of 0.49 μM for **rat liver DHODH**. DHODH-IN-14 can be used for rheumatoid arthritis.

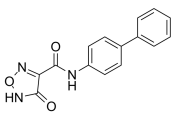


Purity: >98%
Clinical Data: No Development Reported
Size: 1 mg, 5 mg

DHODH-IN-15

Cat. No.: HY-135679

DHODH-IN-15 (Compound 7b) is a hydroxyfurazan analog of A771726. DHODH-IN-15 is a **dihydroorotate dehydrogenase (DHODH)** inhibitor with an IC_{50} of 11 μM for **rat liver DHODH**. DHODH-IN-15 can be used for rheumatoid arthritis.

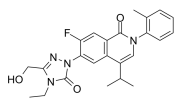


Purity: >98%
Clinical Data: No Development Reported
Size: 1 mg, 5 mg

DHODH-IN-16

Cat. No.: HY-139189

DHODH-IN-16 is a potent **dihydroorotate dehydrogenase (DHODH)** inhibitor with an IC_{50} of 0.396 nM for human DHODH.

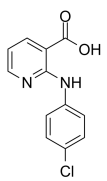


Purity: 99.88%
Clinical Data: No Development Reported
Size: 5 mg, 10 mg, 25 mg, 50 mg, 100 mg

DHODH-IN-17

Cat. No.: HY-128068

DHODH-IN-17, a 2-anilino nicotinic acid, is a human **DHODH** inhibitor (IC_{50}=0.40 μM). DHODH-IN-17 can be used for theresearch of acute myeloid leukemia (AML).

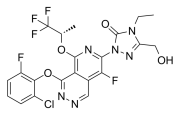


Purity: 99.91%
Clinical Data: No Development Reported
Size: 5 mg, 10 mg, 25 mg

DHODH-IN-18

Cat. No.: HY-139889

DHODH-IN-18 is a human **DHODH** inhibitor (IC_{50} = 0.2 nM).

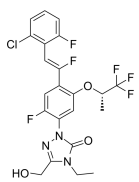


Purity: >98%
Clinical Data: No Development Reported
Size: 1 mg, 5 mg

DHODH-IN-19

Cat. No.: HY-144169

DHODH-IN-19 is a potent inhibitor of **DHODH**. DHODH is present in the inner membrane of human mitochondria and is an iron-containing flavin-dependent enzyme. DHODH-IN-19 inhibits tumor growth.

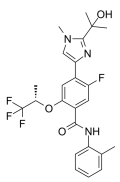


Purity: >98%
Clinical Data: No Development Reported
Size: 1 mg, 5 mg

DHODH-IN-20

Cat. No.: HY-144371

DHODH-IN-20 (Compound 133) is a potent inhibitor of **DHODH**. DHODH is present in the inner membrane of human mitochondria and is an iron-containing flavin-dependent enzyme. DHODH-IN-20 inhibits tumor growth. DHODH-IN-20 has the potential for the research of acute myelogenous leukemia.

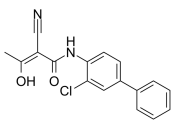


Purity: >98%
Clinical Data: No Development Reported
Size: 1 mg, 5 mg

DHODH-IN-3

Cat. No.: HY-135618

DHODH-IN-3 (compound 3) is a potent inhibitor of **Human Dihydroorotate Dehydrogenases (HsDHODH)** with an IC_{50} value of 261 nM. DHODH-IN-3 binds to the the ubiquinone binding cavities in DHODH with a K_i^{app} of 32 nM.

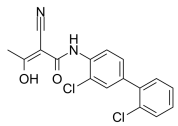


Purity: >98%
Clinical Data: No Development Reported
Size: 1 mg, 5 mg

DHODH-IN-4

Cat. No.: HY-135619

DHODH-IN-4 (compound 17) is a human and Plasmodium falciparum **dihydroorotate dehydrogenase (DHODH)** inhibitor, with IC_{50} values of 4 μM and 0.18 μM for PfDHODH and HsDHODH, respectively. DHODH-IN-4 (compound 17) possess antimalarial activity.

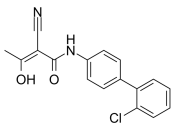


Purity: >98%
Clinical Data: No Development Reported
Size: 1 mg, 5 mg

DHODH-IN-8

Cat. No.: HY-135666

DHODH-IN-8 (Compound 27) is an inhibitor of **human** and **Plasmodium falciparum dihydroorotate dehydrogenase (DHODH)** with IC_{50}s of 0.13 μM and 47.4 μM, and K_is of 0.016 μM and 5.6 μM, respectively. DHODH-IN-8 has antimalarial activity.

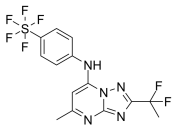


Purity: >98%
Clinical Data: No Development Reported
Size: 1 mg, 5 mg

DSM265

Cat. No.: HY-100184

DSM265 is a long-duration inhibitor of P. falciparum dihydroorotate dehydrogenase (**PfDHODH**) with an IC_{50} of 8.9 nM. DSM265 can also inhibit the growth of **Pf3D7** parasites with an EC_{50} of 4.3 nM.

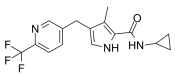


Purity: 99.72%
Clinical Data: Phase 2
Size: 5 mg, 10 mg, 25 mg, 50 mg, 100 mg, 250 mg, 500 mg

DSM502

Cat. No.: HY-132170

DSM502 is a pyrrole-based **Dihydroorotate Dehydrogenase (DHODH) inhibitor. DSM502 exhibits nanomolar potency againsts Plasmodium DHODH and Plasmodium parasites, with no inhibition of mammalian DHODHs.**.

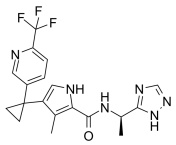


Purity: 99.57%
Clinical Data: No Development Reported
Size: 10 mM × 1 mL, 5 mg, 10 mg, 50 mg, 100 mg

DSM705

Cat. No.: HY-132171

DSM705 is a pyrrole-based **Dihydroorotate Dehydrogenase (DHODH)** inhibitor. DSM705 exhibits nanomolar potency against Plasmodium DHODH and Plasmodium parasites, with no inhibition of mammalian DHODHs. DSM705 is a potent antimalarial compound.

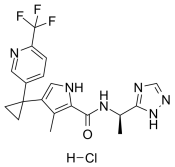


Purity: >98%
Clinical Data: No Development Reported
Size: 1 mg, 5 mg

DSM705 hydrochloride

Cat. No.: HY-132171A

DSM705 hydrochloride, an orally active antimalarial compound, is a pyrrole-based **Dihydroorotate Dehydrogenase (DHODH)** inhibitor.



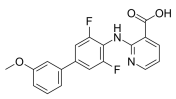
Purity: 99.56%
Clinical Data: No Development Reported
Size: 5 mg, 10 mg, 25 mg, 50 mg, 100 mg

Farudodstat

(ASLAN003)

Cat. No.: HY-129239

Farudodstat (ASLAN003) is an orally active and potent **Dihydroorotate Dehydrogenase (DHODH)** inhibitor with an IC_{50} of 35 nM for human DHODH enzyme. Farudodstat inhibits protein synthesis via activation of AP-1 transcription factors.

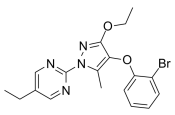


Purity: 99.95%
Clinical Data: Phase 2
Size: 10 mM × 1 mL, 5 mg, 10 mg, 25 mg, 50 mg, 100 mg

hDHODH-IN-3

Cat. No.: HY-135570

hDHODH-IN-3 (compound 21d) is a **human dihydroorotate dehydrogenase (HsDHODH)** inhibitor, inhibits measles virus replication with a $pMIC_{50}$ value of 8.6.

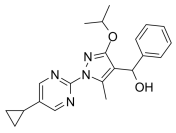


Purity: 99.86%
Clinical Data: No Development Reported
Size: 10 mM × 1 mL, 5 mg, 10 mg, 50 mg, 100 mg

hDHODH-IN-4

Cat. No.: HY-128787

hDHODH-IN-4 is a potent human **dihydroorotate dehydrogenase (DHODH)** inhibitor, with a pIC_{50} of 7.8 for human recombinant DHODH. hDHODH-IN-4 inhibits measles virus replication, with a $pMIC_{50}$ of 8.8.

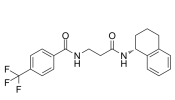


Purity: 99.75%
Clinical Data: No Development Reported
Size: 10 mM × 1 mL, 5 mg, 10 mg, 50 mg

hDHODH-IN-5

Cat. No.: HY-135664

DHODH-IN-7 is a human **dihydroorotate dehydrogenase (DHODH)** inhibitor, with an IC_{50} of 0.91 μM. DHODH-IN-7 induces differentiation in acute myeloid leukemia.

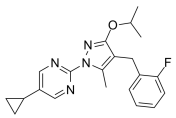


Purity: >98%
Clinical Data: No Development Reported
Size: 1 mg, 5 mg

hDHODH-IN-7

Cat. No.: HY-135667

DHODH-IN-9 (Compound 10k) is an azine-bearing analogue and is a **human dihydroorotate dehydrogenase** inhibitor. DHODH-IN-9 has antiviral effect with a $pMIC_{50}$ of 7.4.

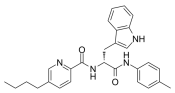


Purity: >98%
Clinical Data: No Development Reported
Size: 1 mg, 5 mg

Indoluidin E

Cat. No.: HY-139825

Indoluidin E selectively inhibits **DHODH** and suppresses cancer cell growth.



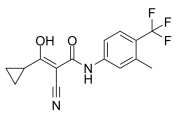
Purity: >98%
Clinical Data: No Development Reported
Size: 1 mg, 5 mg

Laflunimus

(HR325)

Cat. No.: HY-101813

Laflunimus (HR325) is an immunosuppressive agent and an analogue of the Leflunomide-active metabolite A77 1726. Laflunimus is an orally active inhibitor of **dihydroorotate dehydrogenase (DHODH)**.



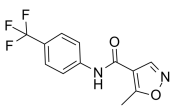
Purity: 99.26%
Clinical Data: No Development Reported
Size: 10 mM × 1 mL, 5 mg, 10 mg, 50 mg, 100 mg

Leflunomide

(HWA486; RS-34821; SU101)

Cat. No.: HY-B0083

Leflunomide is a pyrimidine synthesis inhibitor, inhibiting dihydroorotate dehydrogenase (DHODH), and acts as a disease-modifying antirheumatic drug.

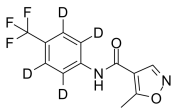


Purity: 99.72%
Clinical Data: Launched
Size: 10 mM × 1 mL, 100 mg, 500 mg

Leflunomide-d4

Cat. No.: HY-B0083S

Leflunomide-d4 (HWA486-d4) is the deuterium labeled Leflunomide. Leflunomide is a pyrimidine synthesis inhibitor, inhibiting dihydroorotate dehydrogenase (DHODH), and acts as a disease-modifying antirheumatic drug.

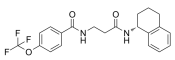


Purity: >98%
Clinical Data:
Size: 1 mg, 10 mg

ML390

Cat. No.: HY-100688

ML390 is a potent **dihydroorotate dehydrogenase (DHODH)** inhibitor. ML390 is an inducer of myeloid differentiation and causes myeloid differentiation in murine (ER-HoxA9) and human (U937 and THP1) acute myeloid leukemia (AML) models.

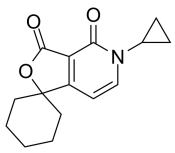


Purity: 98.77%
Clinical Data: No Development Reported
Size: 10 mM × 1 mL, 5 mg, 10 mg, 50 mg, 100 mg

P1788

Cat. No.: HY-146317

P1788 is a **dihydroorotate dehydrogenase (DHODH)** inhibitor. P1788 induces DNA damage.

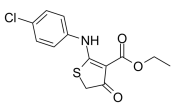


Purity: >98%
Clinical Data: No Development Reported
Size: 1 mg, 5 mg

PfDHODH-IN-2

Cat. No.: HY-W078844

PfDHODH-IN-2, a dihydrothiophenone derivative (Compound 11), is a potent **Plasmodium falciparum dihydroorotate dehydrogenase (PfDHODH)** inhibitor with an IC_{50} of 1.11 μM. PfDHODH-IN-2 acts as an antimalarial agent and can be used for the research of malaria.

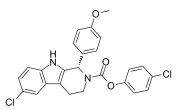


Purity: 99.83%
Clinical Data: No Development Reported
Size: 10 mM × 1 mL, 5 mg, 10 mg, 25 mg, 50 mg, 100 mg

PTC299

Cat. No.: HY-124593

PTC299 is an orally active inhibitor of **VEGFA mRNA translation** that selectively inhibits VEGF protein synthesis at the post-transcriptional level. PTC299 is also a potent inhibitor of **dihydroorotate dehydrogenase (DHODH)**.

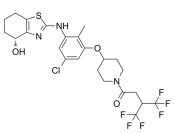


Purity: 99.52%
Clinical Data: No Development Reported
Size: 10 mM × 1 mL, 5 mg, 10 mg, 25 mg, 50 mg

RORγt/DHODH-IN-1

Cat. No.: HY-142843

RORγt/DHODH-IN-1 (compound (R)-14d) is a potent and orally active dual **RORγt/DHODH** inhibitor, with IC_{50}s of 0.083 μM and 0.172 μM, respectively. RORγt/DHODH-IN-1 exhibits remarkable in vivo anti-inflammatory activity.

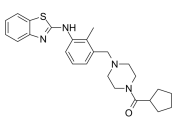


Purity: >98%
Clinical Data: No Development Reported
Size: 1 mg, 5 mg

RORγt/DHODH-IN-2

Cat. No.: HY-142834

RORγt/DHODH-IN-2 (compound 1) is a potent dual **RORγt/DHODH** inhibitor. RORγt/DHODH-IN-2 can be used for inflammatory bowel disease (IBD) research.

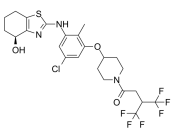


Purity: >98%
Clinical Data: No Development Reported
Size: 1 mg, 5 mg

RORγt/DHODH-IN-3

Cat. No.: HY-142847

RORγt/DHODH-IN-3 (compound (S)-14d) is a dual **RORγt/DHODH** inhibitor, with IC_{50}s of 0.098 μM and 0.432 μM, respectively. RORγt/DHODH-IN-3 exhibits remarkable in vivo anti-inflammatory activity.

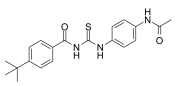


Purity: >98%
Clinical Data: No Development Reported
Size: 1 mg, 5 mg

Tenovin-1

Cat. No.: HY-13423

Tenovin-1, a **p53** activator, protects p53 from MDM2-mediated degradation. Tenovin-1 acts through inhibition of the protein-deacetylating activities of SirT1 and SirT2. Tenovin-1 is also a **dihydroorotate dehydrogenase (DHODH)** inhibitor.

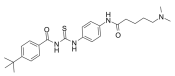


Purity: 99.88%
Clinical Data: No Development Reported
Size: 10 mM × 1 mL, 50 mg, 100 mg

Tenovin-6

Cat. No.: HY-15510

Tenovin-6, an analog of Tenovin-1 (HY-13423), is an activator of **p53** transcriptional activity. Tenovin-6 inhibits the protein deacetylase activities of purified human SIRT1, SIRT2, and SIRT3 with IC_{50}s of 21 μM, 10 μM, and 67 μM, respectively.

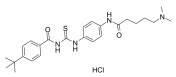


Purity: 98.67%
Clinical Data: No Development Reported
Size: 10 mM × 1 mL, 2 mg, 5 mg, 10 mg, 50 mg, 100 mg

Tenovin-6 Hydrochloride

Cat. No.: HY-15510B

Tenovin-6 Hydrochloride, an analog of Tenovin-1 (HY-13423), is an activator of **p53** transcriptional activity.



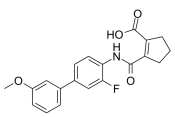
Purity: ≥98.0%
Clinical Data: No Development Reported
Size: 10 mM × 1 mL, 2 mg, 5 mg, 10 mg, 50 mg, 100 mg

Vidofludimus

(4sc-101; SC12267)

Cat. No.: HY-14908

Vidofludimus(4SC-101; SC12267) is a novel immunosuppressive drug that inhibits DHODH; inhibits IL-17 secretion in vitro independently of effects on lymphocyte proliferation.



Purity: 99.06%
Clinical Data: Phase 2
Size: 10 mM × 1 mL, 5 mg, 10 mg, 50 mg, 100 mg