

Data Sheet

Product Name: hPGDS-IN-1
Cat. No.: CS-5139
CAS No.: 1234708-04-3
Molecular Formula: C22H20N6O3

Molecular Weight: 416.43

Target: PGE synthase

Pathway: Immunology/Inflammation Solubility: DMSO: \geq 30 mg/mL (72.04 mM)

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BIOLOGICAL ACTIVITY:

hPGDS-IN-1 is a hPGDS inhibitor ,with IC50 of 12 nM in the Fluorescence Polarization Assay or the EIA assay. IC50 value: 12 nM Target: hPGDS The detailed information please refer to WO2011044307A1 and WO2010080563A2

PROTOCOL (Extracted from published papers and Only for reference)

Enzyme assay [1] Add $60~\mu\text{L}$ of enzyme solution to compound well and positive control (without hPGDS-IN-1) in U-bottom polypropylene plate on ice. Add $60~\mu\text{L}$ of reaction buffer and $6.6~\mu\text{L}$ of 5% DMSO in reaction buffer into negative control wells in the plate. Add $6.6~\mu\text{L}$ of diluted hPGDS-IN-1 in reaction buffer to the compound wells and mix. Add $6.6~\mu\text{L}$ of 5% DMSO in reaction buffer to the positive control well. Incubate the plate in ice for at least 30~min. Add $20~\mu\text{L}$ of substrate (PGH2) solution to compound, negative and positive control wells in the U-bottom 96~well plate on ice. Dry the plate in cold room for about 25-28~min. Pipette $45~\mu\text{L}$ of enzyme solution in to 96~well with dried PGH2 and mix 3~times. Incubate on the ice for 1~min. Add $45~\mu\text{L}$ of FeCl2 solution into each wells and mix. Add $90~\mu\text{L}$ of MOX solution and mix. Incubate for 30~min at 60°C . Dilute the samples 2500X with EIA buffer. Animal administration [2] Fifty male Brown Norway rats(4-7 weeks old, 50-124~g each) were dosed via twice daily oral gavage at 5~ml/kg, starting immediately prior to lasting and continuing for 14~days. hPGDS-IN-1 were formulated in vehicle twice weekly during the study. Vehicle consisted of 0.5% methylcellulose, 0.2% Tween 20~in sterile water for injection, and was formulated once weekly.

References:

- [1]. Vandeusen, Christopher L, et al. Phenyloxadiazole derivatives as PGD inhibitors and their preparation, pharmaceutical compositions and use in the treatment of allergic and inflammatory disorders. From PCT Int. Appl. (2011), WO 2011044307 A1 20110414.
- [2]. Hahn Chang S. Method for treating macular degeneration using syk multikinase inhibitor, an hPGDS inhibitor and a DP antagonist. From PCT Int. Appl. (2010), WO 2010080563 A2 20100715.
- [3]. Weiberth Franz J, et al. Demonstration on Pilot-Plant Scale of the Utility of 1,5,7-Triazabicyclo[4.4.0]dec-5-ene (TBD) as a Catalyst in the Efficient Amidation of an Unactivated Methyl Ester. From Organic Process Research & Development (2012), 16(12), 1967-1969.

CAIndexNames:

5-Pyrimidinecarboxamide, N-[[3-[5-(1-hydroxy-1-methylethyl)-1,2,4-oxadiazol-3-yl]phenyl]methyl]-2-(2-pyridinyl)-1,2,4-oxadiazol-3-yl]phenyl]methyl]-2-(2-pyridinyl)-1,2,4-oxadiazol-3-yl]phenyl]methyl]-2-(2-pyridinyl)-1,2,4-oxadiazol-3-yl]phenyl]methyl]-2-(2-pyridinyl)-1,2,4-oxadiazol-3-yl]phenyl]methyl]-2-(2-pyridinyl)-1,2,4-oxadiazol-3-yl]phenyl]methyl]-2-(2-pyridinyl)-1,2,4-oxadiazol-3-yl]phenyl]methyl]-2-(2-pyridinyl)-1,2,4-oxadiazol-3-yl]phenyl]methyl]-2-(2-pyridinyl)-1,2,4-oxadiazol-3-yl]phenyl]methyl]-2-(2-pyridinyl)-1,2,4-oxadiazol-3-yl]phenyl]methyl]-2-(2-pyridinyl)-1,2,4-oxadiazol-3-yl]phenyl]methyl]-2-(2-pyridinyl)-1,2,4-oxadiazol-3-yl]phenyl]methyl]-2-(2-pyridinyl)-1,2,4-oxadiazol-3-yl]phenyl]methyl]-2-(2-pyridinyl)-1,2,4-oxadiazol-3-yl]phenyl]methyl]-2-(2-pyridinyl)-1,2,4-oxadiazol-3-yl]phenyl]methyl]-1,2,4-oxadiazol-3-yl]phenyl]methyl]-1,2,4-oxadiazol-3-yl]phenyl]methyl]-1,2,4-oxadiazol-3-yl]phenyl]methyl]-1,2,4-oxadiazol-3-yl]phenyl]methyl]-1,2,4-oxadiazol-3-yl]phenyl]methyl]-1,2,4-oxadiazol-3-yl]phenyl]methyl]-1,2,4-oxadiazol-3-yl]phenyl]methyl]-1,2-yl]phenyl]methyl]-1,2-yl]phenyl]methyl]-1,2-yl]phenyl]methyl]-1,2-yl]phenyl]methyl]-1,2-yl]phenyl]methyl]-1,2-yl]phenyl]methyl]-1,2-yl]phenyl]methyl]-1,2-yl]phenyl]methyl]-1,2-yl]phenyl]methyl]-1,2-yl]phenyl]methyl]-1,2-yl]phenyl]methyl]-1,2-yl]phenyl]methyll[methyl]-1,2-yl]phenyl]methyll[methyl]-1,2-yl]phenyl[methyl]-1,2-yl]phenyl[methyll]-1,2-yl]phenyl[methyll]-1,2-yl]phenyl[methyll]-1,2-yl]-1

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