# NXP800

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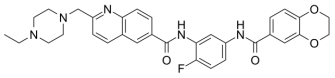
|---|---|
| **Cat. No.:** | HY-145927 |
| **CAS No.:** | 1693734-80-3 |
| **Molecular Formula:** | $C_{32}H_{32}FN_5O_4$ |
| **Molecular Weight:** | 569.63 |
| **Target:** | HSP |
| **Pathway:** | Cell Cycle/DNA Damage; Metabolic Enzyme/Protease |
| **Storage:** | Powder -20°C 3 years<br>4°C 2 years<br>In solvent -80°C 6 months<br>-20°C 1 month |



## SOLVENT & SOLUBILITY

**In Vitro**

DMSO : 100 mg/mL (175.55 mM; Need ultrasonic)

| Preparing Stock Solutions | Solvent / Mass / Concentration | 1 mg | 5 mg | 10 mg |
|---|---|---|---|---|
| | 1 mM | 1.7555 mL | 8.7776 mL | 17.5553 mL |
| | 5 mM | 0.3511 mL | 1.7555 mL | 3.5111 mL |
| | 10 mM | 0.1756 mL | 0.8778 mL | 1.7555 mL |

Please refer to the solubility information to select the appropriate solvent.

## BIOLOGICAL ACTIVITY

**Description**

NXP800 (CCT361814) is a potent and orally active heat shock factor 1 (HSF1) pathway inhibitor. NXP800 has the potential for cancer research[1][2].

**$IC_{50}$ & Target**

HSF1

**In Vitro**

NXP800 (example 169) inhibits U20S cells viability ($IC_{50}$=0.056 μM)[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

**In Vivo**

NXP800 (35 mg/kg; po; once daily for 20 days) inhibits the established SK-OV-3 human ovarian cancer solid tumor xenografts grown subcutaneously, with tumor growth inhibition (TGI) of 120% relative to control[2].

Pharmacokinetic Analysis[2]

| Species | Route | Dose | $T_{max}$ (h) | $AUC_{last}$ | $Cl_{tb}$ | $t_{1/2}$ (h) | F (%) | $AUC_u^{0-t}$ | Free $C_{av}^{0-}$ | $Cl_u$ |
|---|---|---|---|---|---|---|---|---|---|---|

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | (mg/kg) | | (ng·h/mL) | (mL/min/kg) | | | (h·nM) | $^{24h}$ (nM) | (mL/min/kg) |
| mouse | po/iv | 5/5 | 2.0 | 6000 (7800-4600) (po) | 10 (10-9.7) (iv) | 4.0 | 42 (po) | 72 | 3.3 | 830 (iv) |
| rat | po/iv | 5/1 | 6.0 | 2600 (po) | 24 (iv) | 3.1 | 45 (po) | 86 | 3.7 | 730 (iv) |
| dog | po/iv | 2.5/0.5 | 2.0 | 250 (po) | 21 (iv) | 1.4 | 9.1 (po) | 35 | 1.9 | 150 (iv) |

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

## REFERENCES


[1]. Pasqua AE, et al. HSF1 Pathway Inhibitor Clinical Candidate (CCT361814/NXP800) Developed from a Phenotypic Screen as a Potential Treatment for Refractory Ovarian Cancer and Other Malignancies. J Med Chem. 2023

[2]. Keith Jones, et al. Fused 1,4-dihydrodioxin derivatives as inhibitors of heat shock transcription factor 1. WO2015049535A1.





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