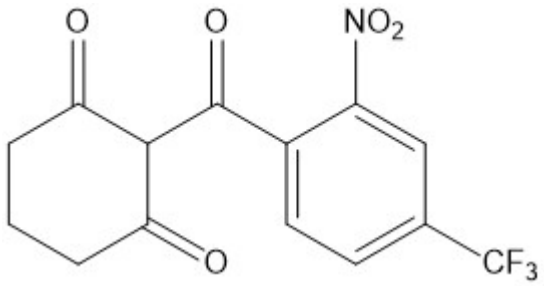
Tribioscience

Nitisinone, Tyrosine metabolism inhibitor

Catalog	Unit
TBI4648-50MG	50 mg
TBI4648-250MG	250 mg

Product Details

Formal Name: 2-[2-Nitro-4-(trifluoromethyl)benzoyl]cyclohexane-1,3-dione
Alternate Names: NTBC
Molecular Formula: $C_{14}H_{10}F_3NO_5$
Formula Weight: 329.23
CAS Number: 104206-65-7
Purity: >98%
Formulation: powder
Solubility: Soluble in DMSO (up to 10 mg/ml)
Storage: -20°C
Stability: ≥ 1 year.



Applications

Tyrosine metabolism inhibitor

Functions

Inhibitor of 4-Hydroxyphenylpyruvate dioxygenase (HPPD; IC50 = 40 nM and 173 nM) and is in clinical use for the treatment of hereditary tyrosinemia type 1. CD13+ cancer stem cells (CSCs) are dependent on aerobic metabolism of tyrosine - Nitisinone inhibition of tyrosine metabolism results in lowered availability of acetyl-CoA and fumarate for use in the citric acid cycle causing these CSCs to enter cell cycle, decreasing self-renewal, and making them more susceptible to chemotherapy. Nitisinone is a potential treatment option for cancers that rely on tyrosine metabolism.

Application Procedures

First dissolved in DMSO (up to 10 mg/ml), then diluted to aqueous buffer. Solutions in DMSO may be stored at -20° for up to 2 months.

For research use only.

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