

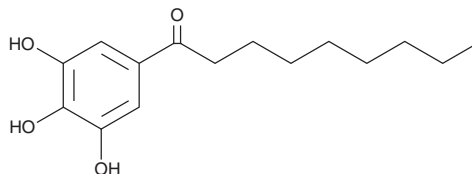
PRODUCT INFORMATION



THPN

Item No. 45944

CAS Registry No.: 100079-26-3
Formal Name: 1-(3,4,5-trihydroxyphenyl)-1-nonanone
MF: $C_{15}H_{22}O_4$
FW: 266.3
Purity: $\geq 95\%$
Supplied as: A solid
Storage: -20°C
Stability: ≥ 4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

THPN is supplied as a solid. A stock solution may be made by dissolving the THPN in the solvent of choice, which should be purged with an inert gas. THPN is soluble (≥ 10 mg/ml) in ethanol and DMSO.

Description

THPN is an inducer of autophagy and a derivative of gallic acid (Item No. 11846).¹ It binds to the ligand-binding domain (LBD) of Nur77 ($K_d = 0.27 \mu\text{M}$), which increases NIP3L-facilitated translocation of Nur77 to the mitochondria and induces autophagy in A375 melanoma cells. THPN reduces viability of L1210 and CEM leukemia cells ($\text{IC}_{50}\text{s} = 22$ and $50 \mu\text{M}$, respectively).² It also reduces cytoplasmic and mitochondrial glutathione levels and increases NF- κB levels in L1210 cells. THPN (20 mg/kg) inhibits the formation of tumors in the lungs and liver in a B16/F10 murine melanoma model.¹

References

1. Wang, W.J., Wang, Y., Chen, H.Z., *et al.* Orphan nuclear receptor TR3 acts in autophagic cell death via mitochondrial signaling pathway. *Nat. Chem. Biol.* **10**(2), 133-140 (2014).
2. Locatelli, C., Rosso, R., Santos-Silva, M.C., *et al.* Ester derivatives of gallic acid with potential toxicity toward L1210 leukemia cells. *Bioorg. Med. Chem.* **16**(7), 3791-3799 (2008).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

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