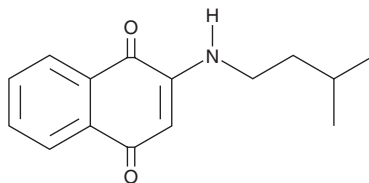


PRODUCT INFORMATION

2-(Isopentylamino)naphthalene-1,4-dione

Item No. 31107

CAS Registry No.: 1607447-79-9
Formal Name: 2-[(3-methylbutyl)amino]-1,4-naphthalenedione
MF: C₁₅H₁₇NO₂
FW: 243.3
Purity: ≥98%
UV/Vis.: λ_{max}: 232, 271 nm
Supplied as: A crystalline 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

2-(Isopentylamino)naphthalene-1,4-dione is supplied as a crystalline solid. A stock solution may be made by dissolving the 2-(isopentylamino)naphthalene-1,4-dione in the solvent of choice, which should be purged with an inert gas. 2-(Isopentylamino)naphthalene-1,4-dione is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of 2-(isopentylamino)naphthalene-1,4-dione in ethanol is approximately 20 mg/ml and approximately 30 mg/ml in DMSO and DMF.

2-(Isopentylamino)naphthalene-1,4-dione is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, 2-(isopentylamino)naphthalene-1,4-dione should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. 2-(Isopentylamino)naphthalene-1,4-dione has a solubility of approximately 0.33 mg/ml in a 1:2 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

2-(Isopentylamino)naphthalene-1,4-dione is a vitamin K analog.¹ It inhibits spasms induced by pentylenetetrazole (PTZ; Item No. 18682) and tonic hindlimb extension induced by maximal electroshock (MES) in mice (ED₅₀s = 349.2 and 108.1 mg/kg, respectively). It also protects mice against seizures in the 6 Hz psychomotor seizure test (ED₅₀s = 152.7 and 263.7 mg/kg at stimulus intensities of 32 and 44 mA, respectively).

Reference

- Li, X., Himes, R.A., Prosser, L.C., *et al.* Discovery of the first vitamin K analogue as a potential treatment of pharmacoresistant seizures. *J. Med. Chem.* **63**(11), 5865-5878 (2020).

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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