

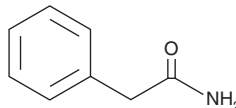
PRODUCT INFORMATION



2-Phenylacetamide

Item No. 36364

CAS Registry No.: 103-81-1
Formal Name: benzeneacetamide
Synonyms: NSC 1877, α -Toluamide
MF: C₈H₉NO
FW: 135.2
Purity: \geq 98%
Supplied as: A solid
Storage: -20°C
Stability: \geq 4 years



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

Laboratory Procedures

2-Phenylacetamide is supplied as a solid. A stock solution may be made by dissolving the 2-phenylacetamide in the solvent of choice, which should be purged with an inert gas. 2-Phenylacetamide is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of 2-phenylacetamide in ethanol is approximately 10 mg/ml and approximately 2 mg/ml in DMSO and DMF.

Description

2-Phenylacetamide is a metabolite of L-phenylalanine (Item No. 31498).^{1,2} It increases the proliferation of MCF-7 cells, an effect that can be blocked by the estrogen receptor (ER) antagonist ICI 182780 (fulvestrant; Item No. 10011269).³ It also increases the levels of luteinizing hormone and estrogen and the expression of estrogen receptor α (ER α) and ER β in the uterus of immature female mice. Urinary levels of 2-phenylacetamide are increased in male obese patients compared with non-obese males.¹

References

1. Yu, H.-T., Fu, X.-Y., Xu, B., *et al.* Untargeted metabolomics approach (UPLC-Q-TOF-MS) explores the biomarkers of serum and urine in overweight/obese young men. *Asia Pac. J. Clin. Nutr.* **27(5)**, 1067-1076 (2018).
2. Guan, Y., Hu, W., Xu, Y., *et al.* Metabolomics and physiological analyses validates previous findings on the mechanism of response to wounding stress of different intensities in broccoli. *Food Res. Int.* **140**, 110058 (2021).
3. Zeng, M., Li, M., Li, M., *et al.* 2-Phenylacetamide isolated from the seeds of *Lepidium apetalum* and its estrogen-like effects in vitro and in vivo. *Molecules* **23(9)**, 2293 (2018).

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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