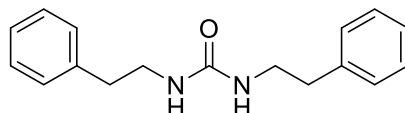


## N,N'-Diphenethylurea

Code No.: **BIA-D2413**

Pack sizes: **1 mg, 5 mg**



Synonyms : 1,3-Diphenethylurea, N,N'-Bis(phenethyl)urea, NSC 25433

### Specifications

CAS #	: 5467-84-5
Molecular Formula	: C <sub>17</sub> H <sub>20</sub> N <sub>2</sub> O
Molecular Weight	: 268.35
Source	: <i>Didemnum molle</i>
Appearance	: White solid
Purity	: >95% by HPLC
Long Term Storage	: -20°C
Solubility	: Soluble in methanol or DMSO

### Application Notes

N,N'-Diphenethylurea was isolated from a marine Streptomyces by Omura and co-workers in 1978 and reported to have a weak antidepressant effect in an in vivo animal model. N,N'-Diphenethylurea, a product of phenylalanine metabolism, enhances adipocyte differentiation in 3T3-L1 cells with expression of PPAR $\gamma$ 2 being significantly increased in cells treated with N,N'-diphenethylurea compared with insulin alone. In addition, N,N'-diphenethylurea-treated cells exhibited significantly upregulated mRNA expression of adipogenic marker genes, including aP2, adiponectin and FAS during adipocyte differentiation.

### References

- 1,3-Diphenethylurea from Streptomyces sp.No.AM-2498. Iwai Y. et al. J Antibiot. 1978, 31, 375.
- N,N'-diphenethylurea, a metabolite from the marine ascidian Didemnum ternatanum. Ireland C.M. J Nat Prod. 1981, 44, 360.
- N,N'-diphenethylurea isolated from Okinawan ascidian Didemnum molle enhances adipocyte differentiation in 3T3-L1 cells. Choi S-S. et al. J Antibiot. 2011, 64, 277.