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ProductInformation

3-Bromo-3-methyl-2-(2-nitrophenylthio)-3H-indole

Product Number **B 4651**
Storage Temperature -20 °C

Product Description

Molecular Formula: $C_{15}H_{11}BrN_2O_2S$
Molecular Weight: 363.2
CAS Number: 27933-36-4
Melting Point: 97-100 °C[1]
Synonym: BNPS-Skatole

BNPS-Skatole is used to cleave the tryptophanyl peptide bond found in tryptophan-containing proteins. Specifically, cleavage occurs at peptide bonds after amino acids with available Cγ-Cδ double bonds such as tryptophan, tyrosine, and histidine. The resulting C-terminal lactones attach to amino-glass supports, which allows sequencing with 4-N,N-dimethyl-aminoazobenzene 4'-isothiocyanate (DABITC). Peptides having such C-termini, such as chymotryptic digest products, can be readily made to react with these reagents and are easily attached and sequenced by solid phase chromatographic methods.

Precautions and Disclaimer

For Laboratory Use Only. Not for drug, household or other uses.

Preparation Instructions

This product is soluble in chloroform (50 mg/ml), yielding a clear, bright yellow solution.

Procedure

BNPS-skatole cleavage can be performed as follows:

1. Prepare a solution containing 10-fold molar excess of BPNS-skatole in 70% distilled acetic acid containing 0.1% phenol.
2. Incubate the peptide with the BPNS-Skatole solution for 48 hours at room temperature.
3. Add a 10-fold molar excess of 2-mercaptoethanol.
4. Incubate the solution for 5 hours at 37 °C.
5. Excess BNPS-skatole can be extracted with ethyl acetate, and the resulting aqueous phase can be either freeze-dried or dried by evaporation.[2]

References

1. Fontana, A., Modification of Tryptophan with BNPS-Skatole(2-(2-Nitrophenylsulfenyl)-3-methyl-3-bromoindolenine). Meth. Enz., **25**, 419 (1972).
2. Hunziker, P. E., et al., Peptide Fragmentation Suitable for Solid-Phase Microsequencing. Biochem. J., **187**, 515-519 (1980).

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