

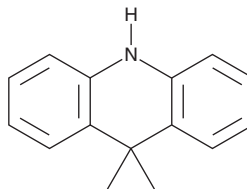
PRODUCT INFORMATION



ABEI

Item No. 45127

CAS Registry No.: 66612-29-1
Formal Name: 7-[(4-aminobutyl)ethylamino]-4-hydroxy-1(2H)-phthalazinone
MF: $C_{14}H_{20}N_4O_2$
FW: 276.3
Purity: $\geq 98\%$
Em. MAX: 425 nm
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

ABEI is supplied as a solid. A stock solution may be made by dissolving the ABEI in the solvent of choice, which should be purged with an inert gas. ABEI is slightly soluble (0.1-1 mg/ml) in acetonitrile:water (1:1).

Description

ABEI is a chemiluminescent probe and a derivative of isoluminol (Item No. 45126).¹ It has been used for the detection of reactive oxygen species (ROS).² ABEI reacts with amine-, thiol-, and carboxylic acid-moieties to form conjugates with small molecules for their detection in HPLC applications.^{3,4} It also has been conjugated to antibodies for use in immunoassays.⁵ ABEI displays a chemiluminescent emission maximum of 425 nm.⁶

References

1. Schroder, H.R. and Yeager, F.M. Chemiluminescence yields and detection limits of some isoluminol derivatives in various oxidation systems. *Anal. Chem.* **50**(8), 1114-1120 (1978).
2. Hosaka, S., Itagaki, T., and Kuramitsu, Y. Selectivity and sensitivity in the measurement of reactive oxygen species (ROS) using chemiluminescent microspheres prepared by the binding of acridinium ester of ABEI to polymer microspheres. *Luminescence* **14**(6), 349-354 (1999).
3. Zhang, Y., Chai, Y., Wang, H., et al. Target-induced 3D DNA network structure as a novel signal amplifier for ultrasensitive electrochemiluminescence detection of microRNAs. *Anal. Chem.* **91**(22), 14368-14374 (1998).
4. Kawasaki, T., Maeda, M., and Tsuji, A. Chemiluminescence high-performance liquid chromatography using n-(4-aminobutyl)-n-ethylisoluminol as a precolumn labelling reagent. *J. Chromatogr.* **328**, 121-126 (1985).
5. Messeri, G., Orlandini, A., and Pazzagli, M. Luminescent immunoassay using isoluminol derivatives. *J. Biolumin. Chemilumin.* **4**(1), 154-158 (1989).
6. Huang, X., Deng, T., Wang, Q., et al. Highly emissive luminophores for direct chemiluminescence detection. *Org. Lett.* **27**(23), 5942-5947 (2025).

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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