AB-2950 MPEC

Usage:

Measurement of superoxide and anti-oxide ability. MPEC reacts specifically with O_2^-.

Substance Identification:

- SUBSTANCE: Reagent for Chemiluminescent Superoxide Probe
- NAME: MPEC
- MODEL No. AB-2950
- VOLUME: 5 mg
- CHEMICAL FAMILY: 2-methyl-6-p-methoxyphenylethynyl-imidazopyrazinone
- MOLECULAR FORMULA: C16H13N3O2
- MOLECULAR WEIGHT: 279.1008

Physical Data:

- DESCRIPTION: Brown powder
- MELTING POINT: 182 – 185 C
- SOLVENT SOLUBILITY: Soluble in alcohol

How to use:

- Dissolve in alcohol before use. Dilute the solvent with alcohol, distilled water, or buffer down to designated concentration.
- Do not leave resulted solution for a long time when you use phosphate buffer or HEPES buffer to dilute. If so, the solution will turn to be transparent and useless.
- Freeze at -20°C to store.
- Do not store after diluting.

Applications

1. Detection of superoxide
   - MPEC (300 μM) 10 μL
   - Xanthine oxidase 60 μL
   - 0.1M Potassium Phosphate Buffer (pH 7.5). 180 μL
   - 0.72 mM Hypoxanthine (pH 7.5) 50 μL
2. Measurement of anti-oxide ability
   - Sample 10 μL
   - MPEC (300 μM) 10 μL
   - Xanthine oxidase 0.1 unit/mL 60 μL
   - 0.1M Potassium Phosphate Buffer (pH 7.5). 170 μL
   - 0.72 mM Hypoxanthine (pH 7.5) 50 μL

Reference:

O. Shimomur, Chun Wu, A. Murai, and H. Nakamura (1998)
Evaluation of Five Imidazopyrazinone – Type Chemiluminescent Superoxide Probes and Their Application to the Measurement of Superoxide Anion Generated by *Listeria monocytogenes*. Anal Biochem. 258, 230-235

ATTO CORPORATION
3-2-2 Motoasakusa, Tel +81 3 5827 4863
Taito-ku Fax +81 3 5827 6647
Tokyo 111-0041 E-mail: eig@atto.co.jp
Japan http://www.atto.co.jp

Distributed by: