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Product Information

Azoxymethane
13.4 M

Product Number **A5486**
Storage Temperature –20 °C

CAS RN 25843-45-2
Synonyms: AOM

Product Description

Azoxymethane (AOM) is a carcinogen that induces O^6-methylguanine adducts in DNA leading to G→A transitions. AOM Induces tumorigenesis in the colon of laboratory animals and is used to study the mechanism of cancer progression and chemoprevention.

AOM has been used in studies evaluating efficacy of preventative treatment for azoxymethane-induced carcinogenesis.[1–3] Azoxymethane is also commonly used to determine the chemopreventative effectiveness of foods such as indigestible sugars,[4,5] red meat,[6] and green tea[7] among others in rodent models. These rodent model results aid in the identification of possible preventative approaches to human colon cancer.[8]

Changes or abnormalities in transforming growth factor beta (TGF-β) signaling are detected in tumors developed by mice treated with AOM.[9,10] Treatment with azoxymethane activates intrinsic tyrosine kinase of EGF receptor while stimulating the synthesis of TGF-α.[11]

The cyclooxygenase 2 (COX-2) inhibitor NS-398 (Product Number N194) reduces the incidence of preneoplastic cells in rats treated with azoxymethane.[12]

AOM is a gene mutation agent that may be used with dextran sulfate sodium (DSS) to create cancer models in laboratory animals.

Note: It is critical to determine the correct dosage of AOM for the experimental design to avoid premature death of laboratory animals. Because the material is a pure liquid and highly concentrated (13.4 M), and in conjunction with potential vial-to-vial variability in volume due to overpack, it is strongly advised to run a titer in order to determine the appropriate dosage of AOM before inoculating the experimental animals.

Precautions and Disclaimer

For R&D use only. Not for drug, household, or other uses. Please consult the Safety Data Sheet for information regarding hazards and safe handling practices.

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