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.

WARRANTY AND LIMITATION OF REMEDY
Buyer agrees to purchase the material subject to Cayman’s Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

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PRODUCT INFORMATION

PRIMA-1^MET
Item No. 9000487

CAS Registry No.: 5291-32-7
Formal Name: 2-(hydroxymethyl)-2-(methoxymethyl)-1-azabicyclo[2.2.2]octan-3-one
Synonym: APR 246
MF: C_{10}H_{17}NO_{3}
FW: 199.3
Purity: ≥95%
Supplied as: A crystalline 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

PRIMA-1^MET is supplied as a crystalline solid. A stock solution may be made by dissolving the PRIMA-1^MET in the solvent of choice, which should be purged with an inert gas. PRIMA-1^MET is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of PRIMA-1^MET in these solvents is approximately 25, 20, and 30 mg/ml, respectively.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of PRIMA-1^MET can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of PRIMA-1^MET in PBS (pH 7.2) is approximately 5 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Mutations in the p53 tumor suppressor are found in many different neoplastic cells. PRIMA-1 (Item No. 63520) is a unique anti-oncogenic substance that re-activates the apoptotic function of mutant p53 via conformational modulation of function-specific epitopes.\textsuperscript{1,2} PRIMA-1\textsuperscript{MET} is a methylated derivative of PRIMA-1 that restores tumor-suppressor function to mutant p53 and induces cell death in various cancer cell lines.\textsuperscript{3} PRIMA-1\textsuperscript{MET} can synergize with chemotherapeutic drugs to induce tumor cell apoptosis.\textsuperscript{4} At 25-50 µM, it can also dose-dependently inhibit thioredoxin reductase, a key regulator of cellular redox balance.\textsuperscript{5}

References