Actinomycin D

SYNONYMS: Actinomycin IV, Dactinomycin IV, Dactinomycin

CATALOG #: 1036-50 50 μl (10 mM in DMSO or

12.55 mg/ml)

1036-5MG 5 mg (solid) 1036-50MG 50 mg (solid)

STRUCTURE:

CAS NUMBER: 50-76-0

PHYSICAL APPEARANCE: Liquid or Red-orange solid

MOLECULAR FORMULA: $C_{62}H_{86}N_{12}O_{16}$

MOLECULAR WEIGHT: 1255.5

PURITY: > 98% by TLC

SOLUBILITY: Soluble in DMSO (20 mg/ml)

STORAGE CONDITIONS: Store powder at -20 °C for up to one year.

Store solutions at -20 °C for up to 3 months.

APPLICATION NOTES:

An antineoplastic antibiotic. Inhibits DNA-primed RNA polymerase by complexing with DNA via deoxyguanosine residues. A DNA-intercalator with growth inhibitory activity against certain leukemias and sarcomas. At higher concentrations, DNA polymerase is inhibited. Inhibits cell growth and colony formation in synchronized HeLa cells. A potent inducer of apoptosis in many cell lines (1).

FOR RESEARCH USE ONLY! Not to be used on humans.

REFERENCES:

Verhaegen, S., et al. (1995) Biochem. Pharmacol. 50:1021-1029.

RELATED PRODUCTS:

Apoptosis Detection Kits & Reagents

- Annexin V Kits & Bulk Reagents
- Caspase Assay Kits & Reagents
- Mitochondrial Apoptosis Kits & Reagents
- Nuclear Apoptosis Kits & Reagents
- Apoptosis Inducers and Set
- Apoptosis siRNA Vectors

Cell Fractionation System

- Mitochondria/Cytosol Fractionation Kit
- Nuclear/Cytosol Fractionation Kit
- Membrane Protein Extraction Kit
- Cytosol/Particulate Rapid Separation Kit
- Mammalian Cell Extraction Kit
- FractionPREP Fractionation System

Cell Proliferation & Senescence

- Quick Cell Proliferation Assay Kit
- Senescence Detection Kit
- High Throughput Apoptosis/Cell Viability Assay Kits
- LDH-Cytotoxicity Assay Kit
- Bioluminescence Cytotoxicity Assay Kit
- Live/Dead Cell Staining Kit

Cell Damage & Repair

- HDAC Fluorometric & Colorimetric Assays & Drug Discovery Kits
- HAT Colorimetric Assay Kit & Reagents
- DNA Damage Quantification Kit
- Glutathione & Nitric Oxide Fluorometric & Colorimetric Assay Kits

Signal Transduction

- cAMP & cGMP Assay Kits
- Akt & JNK Activity Assay Kits
- Beta-Secretase Activity Assay Kit
- 20 Minutes Gel Staining/Destaining Kit
- β -Galactosidase Staining Kit & Luciferase Reporter Assay Kit

Growth Factors and Cytokines

Monoclonal and Polyclonal Antibodies