

Biomarker Focus 45: NEW!

THE COMICS PROJECT:

STANDARDS FOR COMET ASSAY ANALYSIS

Our mission in the COMICS-project was to design and synthesize chemical agents that could induce reproducible amounts of damage in DNA. Several candidates were synthesized and tested for activity in the COMET ASSAY method. In addition other genotoxic compounds were purified to analytical Comet Assay grade.

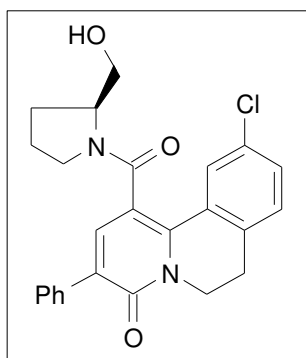
During this project Chiron synthesized 5 specific final compounds, see below for details. Compound 8504.23 showed a remarkable photogenotoxic activity of 10x that of compound 8503.23 (similar to the Roche-compound Ro 19-8022). The activity of 8503.23, (Ro19-8022) and its (S)-isomer 8502.23 were of similar activity, while the two compounds 8500.23 and 8501.23 had no activity.



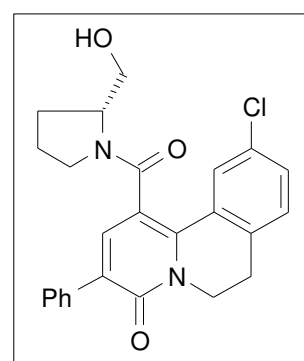
Standardized DMSO-solutions of these compounds are now available from Chiron:

0,1 mM in DMSO, 1x1mL, 5x1mL or 10x1mL
 1,0 mM in DMSO, 1x1mL, 5x1mL or 10x1mL
 2,5 mM in DMSO, 1x1mL, 5x1mL or 10x1mL

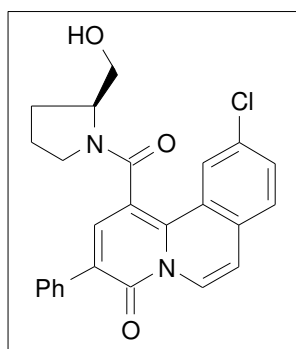
Comet Assay Standards synthesized by Chiron AS



8500.23
 (S)-1-[(10-Chloro-6,7-dihydro-4-oxo-3-phenyl-4H-benzo(a)quinilizin-1-yl)carbonyl]-2-pyrrolidinemethanol

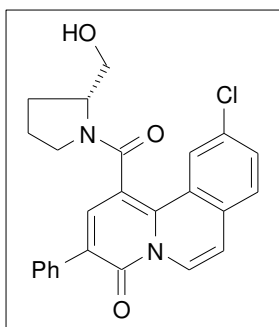


8501.23
 (R)-1-[(10-Chloro-6,7-dihydro-4-oxo-3-phenyl-4H-benzo(a)quinilizin-1-yl)carbonyl]-2-pyrrolidinemethanol

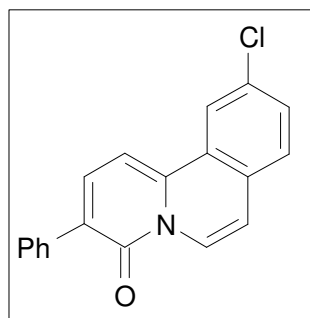


8502.23
 (S)-1-[(10-Chloro-4-oxo-3-phenyl-4H-benzo(a)quinilizin-1-yl)carbonyl]-2-pyrrolidinemethanol





8503.23
(R)-1-[(10-Chloro-4-oxo-3-phenyl-4H-benzo(a)quinolizin-1-yl)carbonyl]-2-pyrrolidinemethanol
Ro 19-8022



8504.23
10-Chloro-3-phenyl-4H-benzo(a)quinolizin-4-one

Other Comet Assay grade standards now available from Chiron:

8490.2	Methylsulfoxide, Comet assay grade
8491.22	Colchicine, Comet assay grade
8492.29	Etoposide, Comet assay grade
8493.2	Methyl methanesulfonate, Comet assay grade
8494.0	Potassium bromate, Comet assay grade
8559.15	2-Acetamidofluorene, Comet assay grade
8560.9	4-Nitroquinoline-N-oxide, Comet assay grade
8561.7	Cyclophosphamide monohydrate, Comet assay grade
8562.34	Triton X-100, Comet assay grade
8563.6	D-Mannitol, Comet assay grade
8564.10	tert-Butylhydroquinone, Comet assay grade
8565.3	tert-Butanol, Comet assay grade
8566.0	Hydrogen peroxide, 35Wt%, Comet assay grade
8567.20	7,12-Dimethylbenz[a]anthracene, Comet assay grade
8568.20	Benzo[a]pyrene, Comet assay grade
8569.16	Ampicillin trihydrate, Comet assay grade
8924.110	Bleomycin sulphate, Comet assay grade
8925.15	Mitomycin C, Comet assay grade
8926.2	N-Nitroso-N-methylurea, Comet assay grade

Available as neat or in DMSO solutions:

0.1 mM in DMSO, 1x1mL, 5x1mL or 10x1mL
 1 mM in DMSO, 1x1mL, 5x1mL or 10x1mL
 2,5 mM in DMSO, 1x1mL, 5x1mL or 10x1mL

