Inhibitory activity of selected compounds

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Inhibitory activity of selected compounds

Abstract

Inhibitory activity of selected compounds

Thayer, P. Inhibitory activity of selected compwnds against Neurospora crassa 4A.

196 selected compwnds against N. crassa 4A was tested. The compounds were tested at 1,000, 100, and 10 µg/ml., etc. in Beadle and Tatum medium. Growth was determined by mycelial weight, and results are expressed as a range bracketing the 50% inhibition concentration.

The following is **exerpted** from "A comparative study of the use of microorganisms in the screening of potential antitumor agents" by Foley, McCarthy, Binns, Snell, Guirard, Kidder, Dewey and Thayer 1958 Ann. N. Y. Acad. Sci. 76:413, in which paper the inhibitory activity of

A. Compounds not inhibitory at 1,000 µg/ml. (N = 94)

Puromycin aminonucleoside
10-(β-Hydroxyethyl)-7,8-di-methyl-
pyrimido 4,5-b quinoxaline-2,4-
(3H,10H)dione acetate
Isoriboflavin
Formamide
Deoxypyridoxine. HCl (2,4-dimethyl-
3-hydroxy-5-hydroxymethylpyridine)
Colchicine
2-Amino-1,3,4-thiadiazole
6-Thioguanine
Galactoflavin
4,6-Diamino-1-(4'-chlorophenyl)-2,2-
dimethyl-1,2-dihydro- -triazine HCl
Ethyl carbamate
N-Methylacetamide
6-Chloropurine
4,6-Diamino-1,2-dihydro-2,2-dimethyl-
1-(2,6-xylyl)- -triazine. HCl
5-Nitro-2-furfurylidene semicarbazone
Strophanthin K
β-Diethylaminoethyl chloride. HCl
10-(β-Hydroxyethyl)-7,8-dimethyl-
pyrimido 4,5-b -quinoxaline-2,4
(3H,10H)-dione succinate
10-(β-Hydroxyethyl)-7,8-dimethyl-
pyrimido 4,5-b -quinoxaline-2,4-
(3H,10H)dione
6-Mercaptopurine hydrate
Purine
2-Acetamido-1,3,4-thiadiazole
Myleran (1,4-dimethanesulfonyloxy-
butane)
Deacetyl-N-methylcolchicine
Hydrocortisone
Puromycin dihydrochloride
N-Methylformamide
DI-Desthiobiotin
Brucine Sulfate

Protopine hydrochloride
S-benzylthiuronium chloride
5,6-Diaminouracil, hemisulfate
Allyl lactate
Guanyurea sulfate
Methionine sulfoxide
Ethanol,2-(2-methoxyethoxy)-
p-Aniraldehydc thiosemicarbazone
4-Acetylmorpholine
2,6-Diaminopyridine
2-Aminopyrimidine
5-Pyrimidinecarboxylic acid-1,2,3,4-
tetrahydro-2,4-dioxomono-hydrate
p-Biguanide-Benzamide
N-2-Hydroxyethylphthalimide
Diethyl ethane phosphonate
1,2,3,6-Tetrahydro-3,6-dioxo-2-
phenyl-4-pyridazineacetic acid
5,7-Dihydroxy-(3,1,2)oxadiazolo(d)
pyrimidine
1,3-Diethylurea
n-Lauryl thiocyanate
4,6-Diamino-1-(p-carboxyphenyl)-1,2-
dihydro-2,2-dimethyl- -triazine HCl
1-Propanol,3-(methylthio)-
Guanidineacetic acid (glycocyamine)
α,α-Dimethylbenzyltrimethylammonium
iodide
Narcotine
2-Dimethylaminoethanol
Meconic acid
Chloramphenicol, Chloromycetin
Theobromine
4-Chlorochalcone
Methyl carbamate
Theophylline
Strychnine
2-Naphthoic acid, 3-hydroxy-7-
sulfo-

Methyl 3-pyridyl ketone (3-acetylpyridine)
D-Glucosamine HCl
Codeine sulfate. 5H₂O
8-Aza-2,6-diaminopurine sulfate
Cotarnine HCl
N-Phenylsuccinimide
Thebaine hydrochloride ethanolate
Trichloroacrylic acid, sodium salt
Benzylidene adonitol (or dibenzylidene
adonitol)
2-2'-Sulfinyldiethanol
3-Pyridine sulfonic acid, sodium salt
Tetrapropyl thiopyrophosphate
3-Methoxypropylamine
Morphine sulphate. 5H₂O
2-Methyl pseudourea HCl
Ethylene sulfite (cyclic ester)
p-Acetamino-m-oniridine
Thiopic acid (pantoyltaurine)
N-(5-Nitro-2-furfurylidene)-1-amino-
hydantoin (Furadantin)
Nicotine
2-Hydroxy-4,6-dimethyl pyrimidine HCl
Cinchonidine
Benzenesulfonic acid, diester with
diethylene glycol
Di-N-nitrosopiperazine
p-Acetylaminobenzaldehyde semicarbazone
Cacotheline
Quinidine sulfate
Santonin
Lauranilide
Tetrahydrothebaine HCl trihydmtc
2,4-Diamino-6-hydroxy-5-phenylazo-
pyrimidine
N-(2-Carboxyethyl)-L-tyrosine

B. Compounds shaving 50% inhibition between 100 and 1,000 µg/ml (N = 51)

2-(2,4-Dichlorophenoxy)ethanol
Potassium arsenite
7-Chloro-4-(4-diethylamino-1-methyl-
butylamino)-3,6-dimethylquinoline
diphosphate dihydrate
4,6-Diamino-1-(3'-chlorophenyl)-1,2-
dihydro-2,2-dimethyl-s-triazine HCl
4,6-Diamino-1-(3'-bromophenyl)-1,2-
dihydro-2,2-dimethyl-s-triazine HCl
4,6-Diamino-1-(3',4'-dichlorophenyl)-
1,2-dihydro-2,2-dimethyl-s-triazine
HCl

2,4-Diamino-5-(p-chlorophenyl)-6-
ethylpyrimidine
1,9-Dimethanesulfonoxynonane
3,3'-Diamino-4,4'-dihydroxyarseno-
benzene dihydrochloride
Isopropyl N-phenylcarbamate
4,6-Diamino-1-(4'-chlorophenyl)-2-
n-hexyl-1,2-dihydro- -triazine HCl
4-Amino-6-anilino-1,2-dihydro-2,2-
dimethyl-s-triazine
2,4-Diamino-5-(3',4'-dichlorophenyl)-
6-ethylpyrimidine

Quinine hydrobromide
4-Amino-6-anilino-1,2-dihydro-2-
phenyl-s-triazine
2-Ethylamino-1,3,4-thiadiazole HCl
Camphoric acid
Folic acid
Resorcinol
2-(1,1-Dimethyl-3-guanidino)-4-methyl-
6-chloroquinazoline nitrate hydrate
Benzotriazole
5-Chlorobenzimidazole
Tri-n-butyl-phosphite

β-Mercaptopropionic acid
 n-Butyl thiocyanate
 Salicylamide
 Caffeine
 2,4'-Sulfonyldiphenol
 2-Amino-2-methyl-1-propanol
 8-Azaxanthine
 Ethylhydrocupreine HCl
 α-Cyano-β-phenylacrylic acid
 Dimethyl sulfoxide

4-Amino-6-(p-chloroanilino)-1,2-dihydro-2,2-dimethyl-3-triazine. 1H₂O
 2-Allylamino-5-methyl-1,3,4-thiadiazole HCl
 Cyclopropanecarboxylic acid
 β-Benzoylpropionic acid
 p-Fluoroaniline
 Benzimidazole
 Benzenephosphonic acid
 Benzoic acid, m-sulfo-
 Acetylene dicarboxylic acid

Methylolacrylamide
 9-(-Di-n-butylaminopropylamino)-1,2,3,4-tetrahydroacridine phosphate
 2,4-Dimethyl-3-pentanone semicarbazone
 2-Benzoyl-1-(α-pyridyl)propanol-1
 5-Iodosalicylic acid
 6-Nitrobenzimidazole
 Berberine sulfate
 β-Chloropropionic acid
 Chloral hydrate

C. Compounds showing 50% inhibition between 10 and 100 µg/ml (N = 21)

1,5-Diaminobiuret
 4-(p-Dimethylaminostyryl)-quinoline
 4,6-Diamino-1-(3'-chlorophenyl)-1,2-dihydro-2-n-hexyl- -triazine HCl
 1-Phenyl-3,3-dimethyltriazene
 Neutral red (toluylene red)
 Oxophenarsine.HCl (2-amino-4-arsenos-phenol HCl)

Benzenesulfonylhydrazide
 β,β'-Dithiocyanodiethyl ether
 Ethylene dithiocyanate
 Pyrogallol
 β-2-Thienylalanine
 p-Nitrobenzamide
 6-Methoxyquinoline-4-aldehyde
 Allyl p-chlorophenylcarbonate

Lauric acid hydrazide
 2-Amino-5-nitrothiazole
 2,6-Dimethyl-4-(2-oxo-2-phenylethyl-mercapto)pyrylium bromide
 Chloromethyl p-chlorophenyl sulfonate
 Phenol, p-chloro
 3,5-Dibromoanthranilic acid
 Apomorphine HCl

D. Compounds showing 50% inhibition between 1 and 10 µg/ml (N = 21)

4-(p-Diethylaminostyryl)-quinoline
 Netropsin HCl
 Methyl bis(β-chloroethyl)-amine HCl
 Azaserine (O-diazoacetyl-L-serine)
 2,6-Diaminopurine hydrate
 4-(p-Diethylaminostyryl)-quinoline HCl
 DL-Ethionine
 Aminopterin
 A-Methopterin

4-(p-Dimethylaminostyryl)-quinoline methiodide
 Methylene blue chloride
 (methylthionine chloride)
 4,6-Diamino-1-(m-bromophenyl)-1,2-dihydro-2-(n-undecyl)-3-triazine. HCl
 4-(p-Dimethylaminostyryl)-quinoline methochloride

-Dinitrophenol (2,4-dinitrophenol)
 2-(p-Dimethylaminostyryl)-quinoline methiodide
 Methyl green
 α-Chloroacetanilide
 Di-n-octylamine
 Pyronin B
 Methyl chloroacetate
 Phenol, 2,4-dichloro

E. Compounds showing 50% inhibition between 0.1 and 1.0 µg/ml (N = 7)

4-(p-Diethylaminostyryl)-quinoline dihydrochloride
 Sodium azide

Actinomycin D
 8-Azaguanine
 Crystal violet (gentian violet)

Picryl chloride
 Dodecyl 4-n-nonylpyridinium chloride

F. Compounds showing 50% inhibition at less than 0.1 µg/ml (N = 2)

Actidione
 8-Hydroxyquinoline