

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 excerpted 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	Protopine hydrochloride	Methyl 3-pyridyl ketone (3-acetylpyridine)
10-(8-Hydroxyethyl)-7,8-dimethyl-pyrimido 4,5-b quinoxaline-2,4-(3H,10H)dione acetate	5-benzylthiuronium chloride	D-Glucosamine HCl
Isoriboflavin	5,6-Diaminouracil, hemisulfate	Codeine sulfate. 5H ₂ O
Formamide	Allyl lactate	8-Aza-2,6-diaminopurine sulfate
Deoxypyridoxine. HCl (2,4-dimethyl-3-hydroxy-5-hydroxymethylpyridine)	Guanyurea sulfate	Cotarnine HCl
Colchicine	Methionine sulfoxide	N-Phenylsuccinimide
2-Amino-1,3,4-thiadiazole	Ethanol, 2-(2-methoxyethoxy)-	Thebaine hydrochloride ethanolate
6-Thioguanine	p-Anisaldehyde thiosemicarbazone	Trichloroacrylic acid, sodium salt
Galactoflavin	4-Acetylmorpholine	Benzylidene adonitol (or dibenzylidene adonitol)
4,6-Diamino-1-(4'-chlorophenyl)-2,2-dimethyl-1,2-dihydro- -triazine HCl	2,6-Diaminopyridine	2-2'-Sulfinyldiethanol
Ethyl carbamate	2-Aminopyrimidine	3-Pyridine sulfonic acid, sodium salt
N-Methylacetamide	5-Pyrimidinecarboxylic acid-1,2,3,4-tetrahydro-2,4-dioxomono-hydrate	Tetrapropyl thiopyrophosphate
6-Chloropurine	p-Biguanidebenzamide	3-Methoxypropylamine
4,6-Diamino-1,2-dihydro-2,2-dimethyl-1,1-(2,6-xylyl)- -triazine. HCl	N-2-Hydroxyethylphthalimide	Morphine sulphate. 5H ₂ O
5-Nitro-2-furfurylidene semicarbazone	Diethyl ethane phosphonate	2-Methyl pseudourea HCl
Strophanthin K	1,2,3,6-Tetrahydro-3,6-dioxo-2-phenyl-4-pyridazineacetic acid	Ethylene sulfite (cyclic ester)
8-Diethylaminoethyl chloride. HCl	5,7-Dihydroxy-(3,1,2)oxadiazolo(d)pyrimidine	p-Acetamino-m-oniridine
10-(8-Hydroxyethyl)-7,8-dimethyl-pyrimido 4,5-b -quinoxaline-2,4-(3H,10H)-dione succinate	1,3-Diethylurea	Thiopicnic acid (pantoyltaurine)
10-(8-Hydroxyethyl)-7,8-dimethyl-pyrimido 4,5-b -quinoxaline-2,4-(3H,10H)dione	n-Lauryl thiocyanate	N-(5-Nitro-2-furfurylidene)-1-amino-hydantoin (Furadantin)
6-Mercaptopurine hydrate	4,6-Diamino-1-(p-carboxyphenyl)-1,2-dihydro-2,2-dimethyl- -triazine HCl	Nicotine
Purine	1-Propanol, 3-(methylthio)-	2-Hydroxy-4,6-dimethyl pyrimidine HCl
2-Acetamido-1,3,4-thiadiazole	Guanidineacetic acid (glycocyamine)	Cinchonidine
Myleran (1,4-dimethanesulfonyloxy-butane)	α,α-Dimethylbenzyltrimethylammonium iodide	Benzenesulfonic acid, diester with diethylene glycol
Deacetyl-N-methylcolchicine	Narcotine	Di-N-nitrosopiperazine
Hydrocortisone	2-Dimethylaminoethanol	p-Acetylaminobenzaldehyde semicarbazone
Puromycin dihydrochloride	Meconic acid	Cacotheline
N-Methylformamide	Chloramphenicol, Chloromycetin	Quinidine sulfate
DI-Desthiobiotin	Theobromine	Santonin
Brucine Sulfate	4-Chlorochalcone	Lauranilide
	Methyl carbamate	Tetrahydrothebaine HCl trihydmtc
	Theophylline	2,4-Diamino-6-hydroxy-5-phenylazo-pyrimidine
	Strychnine	N-(2-Carboxyethyl)-L-tyrosine
	2-Naphthoic acid, 3-hydroxy-7-sulfo-	

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

2-(2,4-Dichlorophenoxy)ethanol	2,4-Diamino-5-(p-chlorophenyl)-6-ethylpyrimidine	Quinine hydrobromide
Potassium arsenite	1,9-Dimethanesulfonoxynonane	4-Amino-6-anilino-1,2-dihydro-2-phenyl-s-triazine
7-Chloro-4-(4-diethylamino-1-methyl-butylamino)-3,6-dimethylquinoline diphosphate dihydrate	3,3'-Diamino-4,4'-dihydroxyarseno-benzene dihydrochloride	2-Ethylamino-1,3,4-thiadiazole HCl
4,6-Diamino-1-(3'-chlorophenyl)-1,2-dihydro-2,2-dimethyl-s-triazine HCl	Isopropyl N-phenylcarbamate	Camphoric acid
4,6-Diamino-1-(3'-bromophenyl)-1,2-dihydro-2,2-dimethyl-s-triazine HCl	4,6-Diamino-1-(4'-chlorophenyl)-2-n-hexyl-1,2-dihydro- -triazine HCl	Folic acid
4,6-Diamino-1-(3',4'-dichlorophenyl)-1,2-dihydro-2,2-dimethyl-s-triazine HCl	4-Amino-6-anilino-1,2-dihydro-2,2-dimethyl-s-triazine	Resorcinol
	2,4-Diamino-5-(3',4'-dichlorophenyl)-6-ethylpyrimidine	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- α -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- α -triazine HCl
 1-Phenyl-3,3-dimethyltriazene
 Neutral red (toluylene red)
 Oxophenarsine.HCl (2-amino-4-arsenos-phenol HCl)

Benzenesulfonhydrazide
 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)- α -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