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Stocks from Tatum Neurospora Collection

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Abstract

Stocks from Tatum Neurospora Collection, compiled by R.W. Barratt, Director, FGSC, from existing information from the files of the late Dr. E.L. Tatum

Stocks from Tatum Neurospora Collection

The original Tatum collection including stocks produced at Stanford, Yale, Rockefeller Universities and Brookhaven by Val Woodward, has now been completely received and stocks or strains deemed of value, and not previously included in the FGSC collection, saved separately. All strains are in the original lyophil culture. Anyone wishing any of the stocks listed below should write to FGSC and specify the stock desired by genotype, isolation (allele) number, etc. The following information has been compiled by R.W. Barratt, Director, FGSC from existing information from the files of the late Dr. E.L. Tatum. The viability and genotype of any of the strains is not guaranteed by FGSC.

Group I

Beadle/Tatum original mutants, or closest to original available. Many have been relyophilized from original but not crossed and reisolated. All loci are represented in the current FGSC collection as reisolates from crosses to wild types. A/a under mating type indicates a strain is available in both mating types.

Locus	Allele	M.T.	Date Lyophilized	Notes
ad-2	27663	a	?	See FGSC 516 - backcross with SY4a of Caltech backcross (27663-1830-8A)
ad-4	44206	a	12-49	Presumably from Caltech (44206-3382-4a)
ad-5	71104	a	12-49	Original strain? Carries Caltech # (71104-5115-6a)
ad-6	28610	a	12-49	Carries Caltech #28610-C-930a. Probably an isolate from backcross to an unknown wild type.
ad-7	44411	a	12-49	Presumably F. Hungate reisolate of original see also FGSC 517
al-2	15300	A	2-47	Probably from first cross of original
al-2	15300	a	2-46	Original isolate
am	47305	A	6-50	Presumably original isolate. See also FGSC 519
amy	422	A	6-51	In heterokaryon (met-7;amy)+(arg-6)
arg-1	46004	a	8-53	Presumably original. See also FGSC 407
arg-1	T(I;V)36703	a	2-46	Probably original isolate
arg-4	34105	a	3-57	From Caltech collection via Mary Mitchell Not original (34105-R-3a)
arg-4;al-1	21502;4637	a	3-57	From Mary Mitchell, but not original strain
arg-5	27947	a	2-56	From Barratt, perhaps original isolate
arg-5	27947	a	3-56	May be original - this stock from Tatum to Barr&t to Perkins to Tatum collection
arg-6	29997	a	12-53	Very leaky, due to suppressor or heterokaryons; probably original.
arg-11	30820	A	4-57	Not original; probably 3rd generation backcross
asco	37402	a	7-54	From Caltech via M. Mitchell -probably original.
chol-1	34486	a	4-49	Probably original, probably same as FGSC **485**
chol-2	47904	a	12-49	Possibly original strain; carries Caltech # 47904-2893-7a)
cys-10	39816	a	11-58	Earliest strain available, pedigree unknown
dn	38502d	a	07-54	From Celtech via M. Mitchell (original?)
gld	70007g	A	1961	Reisolate of original
hom	51504	A	4-48	Presumably original
ile-1	46003	A	4-48	Presumably original
ilv(71103)	71103	A	11-46	Presumably original
inl	37401	A	7-51	Probably backcross to w.t. derivative in **A m.t.**
in1	37401	a	2-46	Probably original
in1	46316	a	?	See FGSC 2321
in1	64001	A	?	From Beadle to Catcheside to FGSC (see FGSC 658)

Locus	Allele	M.T.	Date Lyophi-lized	Notes
inl	T(V;VI)46802	a	1-48	Presumably original
iv-1	16117	A/a	2-49	Original isolate
iv-2	46807	A	11-46	Presumably original (see also FGSC 501)
leu-1;al-2	33757;15300	A	5-46	Earliest derivative available
lys-1	33933	a	1-51	From Caltech collection via M. Mitchell (33933-R-7a), not original
lys-2	37101	A	1-51	Designated 37101-N-1-A. Probably not original isolate.
lys-2	37101	a	12-49	Probably original
lys-4	15069	a	12-49	Probably from 1st cross of original. Carries Caltech no. 15069-H-5a
me-1	38706	a	3-56	Possibly original isolate
me-3	36104	a	10-49	Probably original isolate
me-5	9666	A/a	?	1st backcross of original (9666-1-2A; 9666-1-14a
me-6	35809	a	12-49	Probably original
met-1	38706	A	1961	From Tatum to Barratt to Tatum Rocke-feller collection - possibly original
met-7	37103	A	10-49	Presumably original
nit-1	34547	A	7-54	From Caltech via P. St. Lawrence, not original (33547-R1-A)
nt	65001	a	10-49	Presumably original strain
pab-1	38113	A	7-46	Original isolate
pdx-1	37803	A	2-47	Original isolate
pdx-1	44602p	a	2-46	see thi-1 below
pro-3	44207	a	3-57	From Caltech via M. Mitchell; presumably reisolate (44207-P787-4a)
pyr-3	37301p	A	12-49	Presumably original isolate (FGSC 87)
pyr-3	37301p	a	3-50	From backcross to SY4a
pyr-4	36601	a	10-49	Probably original
rib-l	51602(t)	A	3-46	Original isolate
sc,leu-1;al	5801,33757; 15300(?)	?	5-46	Earliest derivative available
thi-1	56501	a	3-46	Presumably original isolate
thi-1	T(I;VII)17084 pdx-1(37803)	a	1-46	Earliest known
thi-1	T(I;VII)17084 pdx-1(44602p)	a	2-46	Earliest known
thi-2	9185	a	4-48	1st backcross of original 9185-1-3a, 9185-1-56A (strong growing culture)
thi-3	18558	A	1-46	Probably original
thi-4	85902	A	7-46	Presumably original isolate
thi-5	50005	a	11-46	Presuably original strain from Caltech (50005-5231-7a)
thr-2	35423	a	8-52	From Caltech collection via E. Adelberg, probably original
trp-2	45302	a	11-46	Presumably original strain
trp-2	47317	a	11-46	Probably original strain
trp-2	75001	A	11-46	Possibly original isolate
trp-2	75001	a	2-46	Possibly original isolate
trp-2	75002	a	11-46	Possibly original isolate
un-4	66204	?	3-61	From Caltech, presumably reisolate of original 66204-R-3
val	33050	A	11-46	Presumably original strain

Note: R used in middle of a Caltech number was used to designate reisolate from backcross to wildtype

Group II

Brookhaven mutants using the prefix B. Produced by Val Woodward

Part 1: Original mutants or closest to original mutants available. All loci are represented in the current FGSC collection as reisolates from crosses.

Locus	Allele	MT	Date Lyophilized	Notes
am	B501	A	10-55	Presumably original
bal	B56	A	5-63	Probably original
col-17	B5	A	2-75	May be relyophilized original
com	B54	A	6-60	Probably original
gran	B42	A	4-60	Original relyophilized
mo(B8)	B8	A	11-53	Original strain
mo(B66)	B66	A	2-54	Original strain
mo(B70)	B70	A	2-54	Original strain
mo(B107)	B107	A	2-54	Probably original
mo(B109)	B109	a	4-58	Derived strain
pf	B141	A	4-60	Probably original
pi	B101	A	10-70	Probably original
pk	B30	A	2-54	Original relyophilized
ro-1	B15	A	11-53	Original strain
ro-1	B4	A	11-53	Original strain
ro-2	B20	A	4-60	Original relyophilized
rol-1	B31	A	11-53	Original relyophilized

Part II: B mutants incompletely characterized: Produced by Dow Woodward and W. Ogata

Allele	Responds to	Mutagen	Allele	Responds to	Mutagen
B507	acetate	X	B574	glutamic acid	UV
B523	acetate	X	B580	glutamic acid	X
B527	acetate	S	B584	glutamic acid	UV
B535	acetate	UV	B551	glutamic acid inhibited	UV
B537	acetate	UV	B530	glutamic acid or acetate	UV
B539	acetate	UV	B544	glutamic acid or acetate	UV
B542	acetate	UV	B550	glutamic acid or acetate	UV
B560	acetate	UV	B547	glutamic acid or acetate	UV
B403	aspartic acid, isoleucine	?	B554	glutamic acid or acetate	UV
B562	glutamate, aspartate or acetate	UV	B557	glutamic acid or acetate	UV
			B558	glutamic acid or acetate	UV
B515	glutamic acid	X	B525	glutamic acid or alanine	S
B522	glutamic acid	X	B552	glutamic acid or alanine	UV
B528	glutamic acid	S	B566	glutamic acid or alanine	UV
B532	glutamic acid	UV	B570	glutamic acid or alanine	UV
B543	glutamic acid	UV	B573	glutamic acid-pH sensitive	UV
B548	glutamic acid	UV	B531	glutamic acid/colonial	UV
B569	glutamic acid	UV	B437	glycine complete medium	?
B572	glutamic acid	UV			

Part III

Rockefeller "R" mutants. Produced by E.L. Tatum and associates at Rockefeller Univ.

locus	allele	mt	mutagen	date	comments
al	R2436al	A/a	UV	12-62	Derived strains R2436-1-2A, 1-24A
al	R2502al	a	UV?	7-63	Derived strain only R2502-1-22a may contain an aberration.
aro-3	R2017	A?	UV	7-59	Original, contains inl.
asn	R1017	A	?	1-61	With inl. Produced by E. Reich?
asn	R1018	A	?	1-61	With inl. " " "
asn	R1019	A	?	1-61	With inl. " " "
asn	R1020	A	?	1-61	With inl. " " "
asn	R1021	A	?	1-61	With inl. " " "
asn	R1022	A	?	1-61	With inl. " " "
asn	R1023	A	?	1-61	With inl. " " "
asn	R1024	A	?	1-61	With inl. " " "

locus	allele	mt	mutagen	date	comments
asn	R1025	A	?	1-61	With inl. Produced by E. Reich?
asn	R1026	A	?	1-61	With int. " " "
asn	R1027	A	?	1-61	With int. " " "
asn	R1028	A	?	1-61	With int. " " "
asn	R1029	A	?	1-61	With int. " " "
asn	R1030	A	?	1-61	With int. " " "
asn	R1031	A	?	1-61	With int. " " "
asn	R1032	A	?	1-61	With int. " " "
asn	R1033	A	?	1-61	With int. " " "
asn	R1034	A	?	1-61	With int. " " "
asn	R1035	A	?	1-61	With int. " " "
asn	R1036	A	?	1-61	With int. " " "
asp	R1003	a?	?	6-59	original, contains inl. May be asn.
asp	R1004	a?	?	6-59	original, contains int. May be asn.
asp	R1005	a?	?	6-59	original, contains int. May be asn.
bal	R2409	A	S	1-62	See Garnjobst and Tatum, Genetics 57:579-604 Also available derived strains R2409-2-48A, 2-149a.
col	R2373(t)	A	UV	4-61	Original. Presumably contains inl.
col-8	R2523	A/a	UV	8-63	Derived strains only: R2523-1-39a. R2523-2-3A, both with inl.
col-9	R2417	A	UV	8-62	with inl; also derived strains R2417-2-30a, 2-31A.
col-11	R2439	a	UV	2-64	derived strain without inl.
col-12	R2340	A	UV	7-64	derived strain without int.
col-15	R2531	a	S	8-63	Original, contains inl.
col-15	R2539*	a	UV	10-64	original? with inl?
cot-2	R1006(t)	a	UV	8-59	Original. Presumably contains inl.
cot-3	R2006(t)	A	UV	7-59	Original, contains inl.
cot-4	R2101(t)	A	UV	9-59	Original, contains inl.
cot-5	R2446(t)	A/a	UV	11-63	Derived strains only
cot-5	R2454(t)	a	UV	8-63	Derived strain only; R2454-2-55a without inl.
cr-1	R2103	A	UV	9-59	Original, contains inl.
cr-1	R2104	A	UV	9-59	Original, contains int.
cr-1	R2360	?	S	8-66	original, probably the same as FGSC 4344.
cr-1	R2412	A	UV	6-62	earliest strain available is R2412-1-5A.
cr-1	R2433	A	UV	10-63	derived strains R2433-1-2A from cross with RL21a (with inl) and R2433-1-6A (with inl)
cr-1	R2476	A/a	UV	3-63	Only derived strains; R2476-2-77a, R2476-2-78A, presumably both without inl.
cr-1	R2482	A	UV	2-64	Derived strain only; R2482-3(3-1)A with inl.
cr-1	R2501	a	UV	10-63	Derived strain only; R2501-2-47a.
cr-2	R2445	A/a	UV	3-63	earliest strains available; R2445-2-47a, 2-53A.
curly top	R3570	A	?	11-60	Original? with inl? Also derived strains R3570-1-38A, and possible temperature sensitive R3570-1-46t.
da	R2375	A		4-61	Original, contains inl.
fr	R2499fr		UV	10-63	Derived strain only; R2499-4(1-1)A. Also contains modifier of fr.
gln	R1014	a	?	7-63	with inl. Slightly leaky. Only the derived strain R1014-41a available.
gln	R1015	A	?	?	Original. Presumably contains inl.
gln	R1016	a	?	7-63	with inl; also available R1016-1-6a, also with int.
le-2	R2411	A	UV	1-69	in heterokaryon (le-2;inl)+(col-2) see also FGSC 1395.
leu-3	R156	a	UV	1-65	Original. Presumably contains inl.
leu-4	R108	a	UV	1-65	Original. Presumably contains int.
lys	R1000	a?	?	6-59	Original, contains inl.
lys	R1001	a?	?	6-59	Original, contains int.
lys	R1002	a?	?	6-59	Original, contains int.
med	R2401	a	S	6-61	

* Confusion exists as to this isolate no. Garnjobst and Tatum, in Genetics 57:579-604 list two strains col-15 and wa (originally spco-2) with R2539 yet make no mention of the two mutants being derived from the original R2539.

locus	allele	mt	mutagen	date	comments
mo-4	R2467	A/a	UV	12-63	Derived strains only; R2467-2-49a with inl, 2-47A without inl.
mo-5	R2487	a	UV	10-63	Derived strain only; R2487-1-12a with inl.
mod-(fr)	R2499mod	A	UV	10-63	Modifier of fr(2499)
moe-1	R2408	A	S	1-62	See Garnjobst and Tatum, Genetics 57:579-604
moe-1	R2529	A	UV	12-63	Derived strain only; R2529-1(1-4)A, without inl.
morph	R1009	A	?	7-59	grows under agar, may contain inl.
morph	R2394	A	UV?	2-61	with inl; contains aberration linked to I and V.
morph with aberration	R2472	a	UV	2-64	Only derived strain; R2472-2-2a see Garnjobst and Tatum, Genetics 57:579-604.
os	R2361	A/a		1-60	Derived strains only. R2361-4-11a. R2361-3(10-1),R2361-1-46a.
os	R2406	A/a	UV	2-64	derived strains R2406-1-3A, 1-1a earliest available.
os	R2473	A	UV	9-64	see Garnjobst and Tatum, Genetics 57:579-604
pk	R2413	A	UV	8-62	earliest strains available are R2413-1-10A, R2413-2-5a.
pk	R2452	A/a	UV	5-63	Derived strains only; R2452-1-3a with inl; R2452-2-6a, with inl, 2-9A presumably without *inl*.
pk	R2460	A/a	UV	8-63	Derived strains only; R2460-2-58a, 2-68a, both without inl.
pk	R2466	A/a	UV	6-63	Derived strains only; R2465-1-30A with inl, 2-57a without inl.
pk	R2475	A/a	UV	6-63	Only derived strains; R2475-2-72A, without inl, R2475-1-28a, with inl.
rg-1	R2513	a	UV	2-64	Derived strain only, with inl.
rg-1	R2530rg	a	UV	2-64	Derived strain only, R2530-1-33a, without inl.
rol-2	R2459	A	UV	8-63	Derived strain only; R2459-2-73A with inl.
rol-3	R2498	A	UV	5-63	Derived strain only; R2488-1-30A with inl.
rose	no#		UV	6-59	From E.R. Reich
sc	R2386	A	UV	1-61	With inl.
sc	R2503	a	UV	2-64	Derived strain only; R2503-2-53a, also contains inl and possibly "yellow" morph. Originally called col-14. See FGSC 1398.
smco-4	R2435	a	UV	11-62	With *inl*.
smco-5	R2442	a	UV	11-63	with inl? Derived strain R2442-2-48a
smco-7	R2497	a	UV	5-63	Derived strain only; R2497-2(1-7) without inl.
smco-9	R2508	A/a	UV	12-70	Derived strains only; R2508-5-3A, 5-4a with inl.
spco	R2403	?	UV	9-61	with inl; see Garnjobst and Tatum Genetics 57:579-604. Also available R2403-38A.
spco-10	R2488	A	UV	5-64	Derived strain only; R2488-3(3-8)A, with inl.
spco-11	R2502s	a	UV	6-63	Derived strain, contains aberration, R2502-3(5-8)a
spco-12	R2510	a	UV	12-63	Original, contains inl.
spco-14	R2536	?	UV	6-64	Derived strain only, R2536-1-3, without inl. Probably contains separable aberration.
spco-4	R2481	A/a	UV	12-63	Derived strains only; R2481-2-16a, 2-18A, both without inl.
trp-1	R47	a?	?	6-59	Original, contains inl.
uridine	R2461	A	UV	5-63	Derived strain only, R2461-1-11A inl?

Miscellaneous Cultures from E.L. Tatum Rockefeller Collection

pab-1	WSC-4-176	A	?	3-54	Called pab-5
pab-1	WSC-4-24	A	?	3-54	Called pab-4
pab-1	WSC-5-186	A	?	1-55	Called pab-7
pab-1	WSC-5-91	A	?	2-53	Called pab-6
os-3	S-1-1-6			10-73	Original unknown
Chilton a	--	a	–	5-46	Origin?
Abbott	4	A	–	5-46	Origin?
Abbott	12	A	–	5-46	Origin?
Lindegren	1	A	–	1-46	Origin?
Lindegren	25	a	–	1-46	Origin?
glycerol non-utilizer	Sl400	?	X	8-56	

Group IV.

Stanford mutants using the prefix S. Strains retained are closest to original available. Some have been relyophilized but not crossed or reisolated.

Locus	Allele	MT	Mutagen	Lyophile Date	Notes
ad	S1644	a	MC	6-49	with pe,fl; also derived strains S1644-1-1;S1644-2(10-6) with pe,fl
ad	S1851	a	DMBA	6-49	with pe,fl; responds to hypoxanthine
ad	S2062	a	DMBA	8-59?	with pe,fl; responds to hypoxanthine; also S2062-1-2A with pe,fl
ad	S2238	a	MDAS	8-49	with pe,fl; responds to hypoxanthine; also S2238-1-1A with pe,fl
ad	S4220	?	UV	7-51	St. L treated
am	S2929	a	MC	1-53	with pe,fl. Original
am?	S1197	a	X	9-56	with pe,fl
arg	S1003	a	X	1-49	with pe,fl; also contains morph giving flat morphology; also S1003-1(1-6). Uses citrulline
arg	S1132	a	X	1-49	with pe,fl; uses citrulline
arg	S1681	a	MC	6-49	with pe,fl; also responds to proline and ornithine
arg	S4269	a	X	7-55	with pe,fl
arg	S4301	a	X	7-55	with pe,fl
arg+prol	S1077	a	X	12-48	with pe,fl
arg-14 T(IV->VII)I;II;IV)	S1229	a	X	5-57	with pe,fl
asn	S1007	a	X	12-48	T(I,VII)S1007,asn;pe,fl
chol	S1022	A	X	4-49	S1022-1(3-4)A with pe,fl. Probably allelic with chol-1 or -2
chol	S2586	A/a	EAF	2-50	without pe,fl(S2586-1-1a and S2586-1-2A)
chol	S4267	a	X	7-55	with pe,fl. Probably allelic with chol-1 or chol-2
col-6	S1302	a	X	12-48	in heterokaryon with S1457(also colonial)
cys	S1211	?	X	4-49	S1211-1(7-7) with pe,fl
cys/met	S1125	a	X	12-48	with pe,fl
cytidylic acid	S1379	a	X	1-49	single microconidial isolates S1379(4), S1379(8), S1379(9) all fail to grow with adenine, guanine, uracil, xanthine or hypoxanthine
cytidylic acid	S2710	a	PY	3-50	with pe,fl; fails to grow with adenine, guanine, uracil, xanthine or hypoxanthine
cytidylic acid	S4232	?	UV	5-51	St. L treated; no response to uracil, adenine, guanine, xanthine or hypoxanthine
his	52570	a	MC	9-49	with pe,fl; also S2570-2(7-7)A and S2570-2(13-1)A without pe, fl. Origin: Spontaneous
ilv	S4268	a	X	7-55	with pe,fl
ilv	S4305	a	X	7-55	with pe,fl
ilv	S4307	a	X	7-55	with pe,fl
ilv	S4309	a	X	7-55	with pe,fl
ilv	S4310	a	X	7-55	with pe,fl
ilv	S4311	a	X	7-55	with pe,fl
ilv	S4328	a	X	4-56	with pe,fl
ilv	S4329	a	X	4-56	with pe, fl
in1	S4353	?	X	12-56	possibly reverted or with suppressor

Locus	Allele	MT	Mutagen	Lyophile Date	Notes
le-1	S4355	a	UV	1-69	with pe,fl(see FGSC 1402) also available in heterokaryon [le-1 (S4355)a] + [col-8 (R2523)a]
leu	S1119	a	X	12-48	with pe,fl
leu	S1154	a	X	12-48	with pe,fl; also S1154-1(10-1)
leu	S1446	a	X	1-49	with pe;fl; also scanty growth
leu	S4279	a	X	7-55	with pe,fl
lys	S403	a	S	8-49	with pe,fl; also morphological S403-2-15 without pe,fl
lys	S1865	a	MDAB	8-49	with pe,fl. Probably not lys-3 or lys-4. Also available: S1865-2(1-2)A without pe,fl; S1865-2(6-1)a without pe,fl
lys	S4333	a	X	4-56	with pe,fl
lys	S4334	a	X	4-56	with pe,fl
lys + aspg	S1383	a	X	1-49	with pe,fl
macroconidia	S1398	a	X	12-48	may contain suppressor of fl with pe,fl
met	S1002	a	X	12-48	with pe,fl
met	S1011	a	X	12-48	with pe,fl; also S1011-1(1-2)
met	S1225	a	X	12-48	with pe,fl
met	S1248	a	X	12-48	with pe,fl; also S1248-1-6 with pe,fl
met	S1385	a	X	1-49	with pe,fl; scanty morphology
met	S1391	a	X	1-49	with pe,fl
met	S2565	a	MC	9-49	with pe,fl
met	S2582	a	DMAS	10-49	with pe,fl
met	S2624	a	DBA	10-49	with pe,fl
met	S3261	a	S	8-50	with pe,fl; clumpy morphology
met	S3328	a	S	10-50	with pe,fl
met	S4087	?	UV	6-51	St.L A treated
met	S4129	?	UV	5-51	St.L treated
met	S4134	?	UV	5-51	St.L treated
met or thr	S4340	a	X	4-56	with pe,fl
met-6	S2706	a	PY	2-50	original with pe,fl; see FGSC 4248, 4249
met-cys	S1252	a	X	12-48	with pe,fl; morphology abnormal
met/cys	S1327	a	X	2-49	in heterokaryon with S1001(unknown vitamin); may be aconidial
nic	S1069	a	X	12-48	with pe,fl
nic	S3369	a	?	10-50	with pe,fl
nic-1	S1413	a	X	12-48	with pe,fl; also available S1413-1-1, also with pe,fl
nic/inos	S4354	a	X	4-56	with pe,fl; also morphological
nic/pan	S4336	a	X	4-56	with pe,fl
nt?	S4277	a	X	7-55	with pe,fl
nt?	S4293	a	UV	6-55	with pe,fl
pab	S1092	a	X	12-48	with pe,fl; also S1092-1-10a without pe,fl
pab	S1182	a	X	12-48	with pe,fl
pab	S4312	a	X	10-55	with pe fl; can also utilize folic acid
pab	S4331	a	X	4-56	with pe,fl
pab	S4332	a	X	4-56	with pe,fl
pab	S4349	a	?	6-56	with pe,fl
pab-1	S4298	A/a	X	11-55	available in both mt's (S4298-1-1a)(S4298-1-2A) w/o pe,fl
pan	S1246	a	X	12-48	with pe,fl
pan	S4337	a	X	4-56	with pe,fl; also semi-colonial morphology
pan-1	S4255	?	?	7-60	contains unlinked os
pan-1	S4320	a	X	10-55	with pe,fl; utilizes pantoyl-lactone. Linked to cot-1
pan-1	S4321	a	X	10-55	with pe,fl; utilizes pantoyl-

Locus	Allele	MT	Mutagen	Lyophile Date	Notes
pro	S1152	a	X	12-48	with pe,fl
pro	S1417	a	X	12-48	with pe,fl; also S1417-1(6-4) with pe,fl
pro	S1639	a	MC	10-50	with pe,fl; also derived strain S1639-2(4-6) without pe,fl. Responds to proline only, not to arginine or citrulline
pro	S1677	a	MC	6-49	with pe,fl; does not respond to arginine
pro	S3259	a	S	8-50	with pe,fl
pt	S4341	?	?	3-56	with pe,fl
pt	S4342	a	?	3-56	with pe,fl; also available without pe,fl (S4342-1-1)
Su2 (trp-3^td2)-1	su-2	a	?	4-56	from Yanofsky
suc?	S1336	a	X	1-49	scanty, yellow. Responds to succinate, malate, fumarate and alpha-keto glutarate. Original and derived (S1336-1-8a) available (with pe,fl).
thi	S1425	a	X	4-55	with pe,fl; scanty morphology; also available S1425-1(6-3) with pe,fl. Uses intact thiamine only; probably contains an aberration
thi	S1456	?	X	11-49	derived strain(S1456-1-1) with pe,fl only one available; requires intact thiamine
thi	S4335	a	X	4-56	with pe,fl
thi-1?	S4228	?	UV	4-51	St. L treated
thi-1?	S4235	?	UV	6-51	St. L treated
thi-1?	S4239	?	UV	5-51	St. L treated
thi-1?	S4242	?	UV	7-51	St. L treated
thi-1?	S4313	a	X	12-55	with pe,fl
thi-1?	S4323	a	X	11-55	with pe,fl; thi-1 allelism determined by heterokaryon test
thi-2?	S4315	a	X	10-55	with pe,fl
thi-3?	S4324	a	X	11-55	with pe,fl; thi-3 allelism determined by heterokaryon test
thr	S4093	?	UV	6-51	also available S4093-2-16A. Not allelic with ilv-1
thr?	S4339	a	X	4-56	with pe,fl
trp	S1908	a	DMBA	8-49	with pe,fl; also responds to indole
trp	S4118	a	UV	1-62	colony reisolate (S4118a,C3); also available S4118-11A
trp	S4271	a	X	6-55	with pe,fl; yellow agar, uses indole
trp	S4278	a	X	6-55	with pe,fl; uses anthranilate or indole
trp	S4280	a	X	12-55	with pe,fl; responds to tryptophan only
trp	S4316	a	X	10-55	with pe,fl; cannot use indole
trp	S4325	a	X	11-55	with pe,fl; cannot use indole
trp	S4326	a	X	11-55	with pe,fl; cannot use indole slow grower
trp	S4347	a	?	6-56	with pe,fl; responds to indole
trp-2	S4266	a	UV	3-55	0 recomb. out of 256 with 75001. Induced in STA
trp-3	S4356	a	UV	7-57	induced in St.L. (S4356-1(20-6))a
trp-3;su2(trp-3^td2)-1	S1952(td2)	A	MDAB	4-56	from Yanofsky
tyr	S3128	a	MC	8-50	with pe,fl; responds to no other amino acids
tyr	S4317	a	X	10-55	with pe,fl
tyr	S4318	a	X	10-55	with pe,fl

Locus	Allele	MT	Mutagen	Lyophile Date	Notes
tyr	S4319	a	X	10-55	with pe,fl
tyr	S4350	a	?	6-56	with pe,fl
tyr	S4351	a	?	6-56	with pe,fl
un	S1458(t)	a	X	12-48	with pe,fl; scanty morphology; also available S1458-1-25 with pe,fl
unknown YE	S1350	a	X	1-49	scanty growth, with pe,fl
unknown YE	S1363	a	X	12-48	responds to yeast extract: with pe,fl
unknown YE	S1388	a	X	1-49	also single microconidial re-isolate designated S1388a
unknown YE	S1395	a	X	1-49	with pe,fl; "fatty" morphology
unknown YE	S1421	a	X	1-49	with pe,fl; clumpy morphology
unknown YE	S1443	a	X	1-49	with pe,fl; clumpy morphology also available S1443-1(4-4) with pe,fl
unknown YE	S1470	a	X	1-49	with pe,fl; scanty morphology also available 1470-1(7-8) with pe,fl in heterkaryon
unknown YE	S1496	a	X	4-49	derived strain S1496-1-1 with pe,fl; slow growth
unknown YE	S2484	a	AAT	9-49	with pe,fl
unknown YE	S2855	a	MC	6-50	possibly cytidylic acid; with pe,fl
unknown YE	S3162	a	MC	8-50	with pe,fl; also responds to a mixture of amino acids: tyrosine, alanine + glutamine
unknown YE	S3204	a	S	8-50	with pe,fl; also responds to a mixture of amino acids
unknown YE	S4240	?	UV	7-51	St. L treated; possible ilv
unknown YNA	S1052	a	X	12-48	with pe,fl. Responds to yeast nucleic acids
unknown YNA	S1054	a	X	1-49	with pe,fl
unknown YNA	S1191	a	X	12-48	with pe,fl
unknown YNA	S1283	a	X	12-48	with pe,fl, also semi-colonial, produces abundant microconidia
unknown YNA	S1300	a	X	1-49	with pe,fl. Single microconid-
unknown YNA	S1419	a	X	12-48	with pe,fl, scanty morphology also S1419-1(3-8) with pe,fl
unknown YNA	S1672	a	MC	5-49	with pe,fl
unknown YNA	S2553	a	AAT	8-49	with pe,fl
unknown amino acid	S1344	a	X	12-48	scanty - with pe,fl
unknown vitamin	S1001	a	X	2-49	in heterokaryon with S1327(met) with pe,fl
unknown vitamin	S1233	a	X	12-48	with pe,fl; may contain aberration
unknown vitamin	S1323	a	X	1-49	Responds to yeast extract

Group V.

Yale mutants using the prefix Y Produced by E.L. Tatum and associates. Many strains have been relyophilized from the original.

Locus	Allele	MT	Mutagen	Date	Notes
ace-1	Y2492	a	M	5-46	Original 1A X 25a
ad	Y31853	a	M	10-47	Original, contains inl. Responds to hypoxanthine.
ad	Y31886	a	M	6-48	Original, with inl. Responds to hypoxanthine.
al(Y2170)	Y2170	A	M	4-46	Original 1A X 25a (see FGSC no. 796)
al(Y2171)	Y2171	a	M	4-46	Original 1A X 25a (see FGSC no. 795)
al(Y602)	Y602	a	M	3-46	Original 1A X 25a
arom-1	Y7655	a	M	3-48	Original 1A X 25a
chol-1	Y3261	a	M	5-46	Original 1A X 25a

Locus	Allele	MT	Mutagen	Date	Notes
col-1,pe	Y8743c,Y8743pe		MC	9-46	Original, see also FGSC 535
col-2	Y5331	a	MC	3-65	May be original 1A X 25a
col-2,pe	Y5331,Y8743pe		MC	7-47	Microconidial col-2
glycerol + amino acids	Y31867	a	M	10-47	Original, with inl. Requires glycerol + hydrolyzed casein
lys	Y1093	A	M	4-46	Original 1A X 25a
lys	Y1866	a	M	4-46	Original 1A X 25a
lys	Y1870	a	M	4-46	Original 1A X 25a
lys	Y1879	a	M	4-46	Original 1A X 25a
lys	Y31846	a	M	12-47	Original, contains inl. Reisolate Y31846-1-1 w/o inl
met	Y31856	a	M	11-47	Original, contains inl. Also responds to cystine
met	Y31868	a	M	12-47	Original, contains inl.
met	Y31888	a	M	11-47	Original, with inl
moe-1	Y6821	A/a	MC	11-55	May be original, may contain al.
nic-2	Y31455	a	M	12-47	Original with inl from UV of Y8743-13(19-5)a
nic-3	Y31881	A	M	12-47	Derived strain only available with al-2(15300)
pe,fl	Y8743m,L	a		9-50	single microconidial reisolate of original Y8743-21(13-7)8a
pe,fl	Y8743m,L	a		1-48	single microconidial reisolate of original Y8743-21(13-7)2a
rib-2 ylo-1	Y30539r Y30539y	a	UV	12-48	UV original, has abnormal morphology
smco-1	Y2330	a	M	4-46	Original 1A X 25a
su(col-2);co1-2	c;Y5531?		S	9-70	May be original su(col-2) Y5331-5(1-4). see also FGSC 3481, which is a derived strain
tyr-1	Y6994	a	M	12-47	Original?
un	Y31872(t)	a	M	10-47	Original, with inl. No growth at 35°
un	Y31877(t)	a	M	10-47	Original, with inl. No growth at 35°
un	Y31943(t)	a?	M?	6-48	Original, with inl. No growth at 35°
un	Y31958(t)	a	M?	10-47	Original, with inl? No growth at 35°
unknown amino acids	Y31840	a	M	12-47	Original, contains inl. Responds to hydrolyzed casein at 25°, pH5, wild type at 35°, pH 7.
unknown amino acids	Y43269	?	?	6-48	Responds to mix of essential amino acids.
unknown yeast extract	Y43273	?	?	6-48	Responds to yeast extract
uracil	Y1937	a	M	4-46	Morphologically flat growth
vitamin conditional	Y31859	a	M	10-47	Original, contains inl. Requires vitamin at 35°, pH 7 but not at 25°, pH 5.
vitamin conditional	Y31959(t)	a	M?	10-47	Original, with inl? Requires undetermined vitamin at 35°. Good growth on minimal at 25°

Mutagen key (see also Part VII-Key to Symbols in FGSC stock list)

AAT - 2-aminoazotoluene
DBA - dibenzanthracene
DMBA - 9,10-dimethylbenzanthracene
DMAS - dimethylaminostilbene
EAF - ethylaminofluorene
PY - pyrene