

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 re-lyophilized 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 reisolated 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 Barratt 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 Caltech 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 <u>A m.t.</u>
inl	37401	a	2-46	Probably original
inl	46316	a	?	See FGSC 2321
inl	64001	A	?	From Beadle to Catcheside to FGSC (see FGSC 658)

Locus	Allele	M.T.	Date Lyophi- lized	Notes
in1	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 Rockefeller collection - possibly original
met-7	37103	A	10-49	Presumably original
nit-1	34547	A	7-54	From Caltech via P. St. Lawrence, <u>not</u> 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 <u>thi-1</u> 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-1	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	Presumably 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 re-presented in the current FGSC collection as reisolates from crosses.

Locus	Allele	MT	Date Lyophi- lized	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
B515	glutamic acid	X	B558	glutamic acid or acetate	UV
B522	glutamic acid	X	B525	glutamic acid or alanine	S
B528	glutamic acid	S	B552	glutamic acid or alanine	UV
B532	glutamic acid	UV	B566	glutamic acid or alanine	UV
B543	glutamic acid	UV	B570	glutamic acid or alanine	UV
B548	glutamic acid	UV	B573	glutamic acid-pH sensitive	UV
B569	glutamic acid	UV	B531	glutamic acid/colonial	UV
B572	glutamic acid	UV	B437	glycine complete medium	?

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 <u>inl.</u>
asn	R1017	A	?	1-61	With <u>inl.</u> Produced by E. Reich?
asn	R1018	A	?	1-61	With <u>inl.</u> " " "
asn	R1019	A	?	1-61	With <u>inl.</u> " " "
asn	R1020	A	?	1-61	With <u>inl.</u> " " "
asn	R1021	A	?	1-61	With <u>inl.</u> " " "
asn	R1022	A	?	1-61	With <u>inl.</u> " " "
asn	R1023	A	?	1-61	With <u>inl.</u> " " "
asn	R1024	A	?	1-61	With <u>inl.</u> " " "

locus	allele	mt	mutagen	date	comments
asn	R1025	A	?	1-61	With <u>inl.</u> Produced by E. Reich?
asn	R1026	A	?	1-61	With <u>inl.</u> " " "
asn	R1027	A	?	1-61	With <u>inl.</u> " " "
asn	R1028	A	?	1-61	With <u>inl.</u> " " "
asn	R1029	A	?	1-61	With <u>inl.</u> " " "
asn	R1030	A	?	1-61	With <u>inl.</u> " " "
asn	R1031	A	?	1-61	With <u>inl.</u> " " "
asn	R1032	A	?	1-61	With <u>inl.</u> " " "
asn	R1033	A	?	1-61	With <u>inl.</u> " " "
asn	R1034	A	?	1-61	With <u>inl.</u> " " "
asn	R1035	A	?	1-61	With <u>inl.</u> " " "
asn	R1036	A	?	1-61	With <u>inl.</u> " " "
asp	R1003	a?	?	6-59	original, contains <u>inl.</u> May be <u>asn.</u>
asp	R1004	a?	?	6-59	original, contains <u>inl.</u> May be <u>asn.</u>
asp	R1005	a?	?	6-59	original, contains <u>inl.</u> May be <u>asn.</u>
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 <u>inl.</u>
col-8	R2523	A/a	UV	8-63	Derived strains only: R2523-1-39a. R2523-2- 3A, both with <u>inl.</u>
col-9	R2417	A	UV	8-62	with <u>inl.</u> ; also derived strains R2417-2-30a, 2-31A.
col-11	R2439	a	UV	2-64	derived strain without <u>inl.</u>
col-12	R2340	A	UV	7-64	derived strain without <u>inl.</u>
col-15	R2531	a	S	8-63	Original, contains <u>inl.</u>
col-15	R2539*	a	UV	10-64	original? with <u>inl.</u> ?
cot-2	R1006(t)	a	UV	8-59	Original. Presumably contains <u>inl.</u>
cot-3	R2006(t)	A	UV	7-59	Original, contains <u>inl.</u>
cot-4	R2101(t)	A	UV	9-59	Original, contains <u>inl.</u>
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 <u>inl.</u>
cr-1	R2103	A	UV	9-59	Original, contains <u>inl.</u>
cr-1	R2104	A	UV	9-59	Original, contains <u>inl.</u>
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 <u>inl.</u>) and R2433-1-6A (with <u>inl.</u>)
cr-1	R2476	A/a	UV	3-63	Only derived strains; R2476-2-77a, R2476-2- 78A, presumably both without <u>inl.</u>
cr-1	R2482	A	UV	2-64	Derived strain only; R2482-3(3-17A) with <u>inl.</u>
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 <u>inl.</u> ? Also derived strains R3570-1-38A, and possible temperature sen- sitive R3570-1-46t.
da	R2375	A		4-61	Original, contains <u>inl.</u>
fr	R2499fr		UV	10-63	Derived strain only; R2499-4(1-1)A. Also contains modifier of fr.
gln	R1014	a	?	7-63	with <u>inl.</u> Slightly leaky. Only the derived strain R1014-41a available.
gln	R1015	A	?	?	Original. Presumably contains <u>inl.</u>
gln	R1016	a	?	7-63	with <u>inl.</u> ; also available R1016-1-6a, also with <u>inl.</u>
le-2	R2411	A	UV	1-69	in heterokaryon (<u>le-2;inl.</u>)+(col-2) see also FGSC 1395.
leu-3	R156	a	UV	1-65	Original. Presumably contains <u>inl.</u>
leu-4	R108	a	UV	1-65	Original. Presumably contains <u>inl.</u>
lys	R1000	a?	?	6-59	Original, contains <u>inl.</u>
lys	R1001	a?	?	6-59	Original, contains <u>inl.</u>
lys	R1002	a?	?	6-59	Original, contains <u>inl.</u>
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 <u>inl</u> , 2-47A without <u>inl</u> .
mo-5	R2487	a	UV	10-63	Derived strain <u>only</u> ; R2487-1-12a with <u>inl</u> .
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 <u>inl</u> .
morph	R1009	A	?	7-59	grows under agar, may contain <u>inl</u> .
morph	R2394	A	UV?	2-61	with <u>inl</u> ; 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 <u>inl</u> ; R2452-2-6a, with <u>inl</u> , 2-9A presumably without <u>inl</u> .
pk	R2460	A/a	UV	8-63	Derived strains only; R2460-2-58a, 2-68a, both without <u>inl</u> .
pk	R2466	A/a	UV	6-63	Derived strains only; R2465-1-30A with <u>inl</u> , 2-57a without <u>inl</u> .
pk	R2475	A/a	UV	6-63	Only derived strains; R2475-2-72A, without <u>inl</u> , R2475-1-28a, with <u>inl</u> .
rg-1	R2513	a	UV	2-64	Derived strain only, with <u>inl</u> .
rg-1	R2530rg	a	UV	2-64	Derived strain only, R2530-1-33a, without <u>inl</u> .
rol-2	R2459	A	UV	8-63	Derived strain only; R2459-2-73A with <u>inl</u> .
rol-3	R2498	A	UV	5-63	Derived strain only; R2488-1-30A with <u>inl</u> .
rose	no#		UV	6-59	From E.R. Reich
sc	R2386	A	UV	1-61	With <u>inl</u> .
sc	R2503	a	UV	2-64	Derived strain only; R2503-2-53a, also contains <u>inl</u> and possibly "yellow" morph. Originally called <u>col-14</u> . See FGSC 1398.
smco-4	R2435	a	UV	11-62	With <u>inl</u> .
smco-5	R2442	a	UV	11-63	with <u>inl</u> ? Derived strain R2442-2-48a
smco-7	R2497	a	UV	5-63	Derived strain only; R2497-2(1-7) without <u>inl</u> .
smco-9	R2508	A/a	UV	12-70	Derived strains only; R2508-5-3A, 5-4a with <u>inl</u> .
spco	R2403	?	UV	9-61	with <u>inl</u> ; 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 <u>inl</u> .
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 <u>inl</u> .
spco-14	R2536	?	UV	6-64	Derived strain only, R2536-1-3, without <u>inl</u> . Probably contains separable aberration.
spco-4	R2481	A/a	UV	12-63	Derived strains only; R2481-2-16a, 2-18A, both without <u>inl</u> .
trp-1	R47	a?	?	6-59	Original, contains <u>inl</u> .
uridine	R2461	A	UV	5-63	Derived strain only; R2461-1-11A <u>inl</u> ?

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 rehyophilized but not crossed or reisolated.

Locus	Allele	MT	Mutagen	Lyo- phile Date	Notes
ad	S1644	a	MC	6-49	with <u>pe,fl</u> ; also derived strains S1644-1-1; S1644-2(10-6) with <u>pe,fl</u>
ad	S1851	a	DMBA	6-49	with <u>pe,fl</u> ; responds to hypo-xanthine
ad	S2062	a	DMBA	8-59?	with <u>pe,fl</u> ; responds to hypo-xanthine; also S2062-1-2A with <u>pe,fl</u>
ad	S2238	a	MDAS	8-49	with <u>pe,fl</u> ; responds to hypo-xanthine; also S2238-1-1A with <u>pe,fl</u>
ad	S4220	?	UV	7-51	St. L treated
am	S2929	a	MC	1-53	with <u>pe,fl</u> . Original
am?	S1197	a	X	9-56	with <u>pe,fl</u>
arg	S1003	a	X	1-49	with <u>pe,fl</u> ; also contains morph giving flat morphology; also S1003-1(1-6). Uses citrulline
arg	S1132	a	X	1-49	with <u>pe,fl</u> ; uses citrulline
arg	S1681	a	MC	6-49	with <u>pe,fl</u> ; also responds to proline and ornithine
arg	S4269	a	X	7-55	with <u>pe,fl</u>
arg	S4301	a	X	7-55	with <u>pe,fl</u>
arg+prol	S1077	a	X	12-48	with <u>pe,fl</u>
arg-14	S1229	a	X	5-57	with <u>pe,fl</u>
T(IV->VII)I;II;IV)					
asn	S1007	a	X	12-48	T(I,VII)S1007, <u>asn,pe,fl</u>
chol	S1022	A	X	4-49	S1022-1(3-4)A with <u>pe,fl</u> . Probably allelic with <u>chol-1</u> or <u>-2</u>
chol	S2586	A/a	EAF	2-50	without <u>pe,fl</u> (S2586-1-1a and S2586-1-2A)
chol	S4267	a	X	7-55	with <u>pe,fl</u> . Probably allelic with <u>chol-1</u> or <u>chol-2</u>
col-6	S1302	a	X	12-48	in heterokaryon with S1457(also colonial)
cys	S1211	?	X	4-49	S1211-1(7-7) with <u>pe,fl</u>
cys/met	S1125	a	X	12-48	with <u>pe,fl</u>
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 <u>pe,fl</u> ; 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	S2570	a	MC	9-49	with <u>pe,fl</u> ; also S2570-2(7-7)A and S2570-2(13-1)A without <u>pe,fl</u> . Origin: Spontaneous
ilv	S4268	a	X	7-55	with <u>pe,fl</u>
ilv	S4305	a	X	7-55	with <u>pe,fl</u>
ilv	S4307	a	X	7-55	with <u>pe,fl</u>
ilv	S4309	a	X	7-55	with <u>pe,fl</u>
ilv	S4310	a	X	7-55	with <u>pe,fl</u>
ilv	S4311	a	X	7-55	with <u>pe,fl</u>
ilv	S4328	a	X	4-56	with <u>pe,fl</u>
ilv	S4329	a	X	4-56	with <u>pe,fl</u>
inl	S4353	?	X	12-56	possibly reverted or with suppressor

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

Locus	Allele	MT	Mutagen	Lyo- phile Date	Notes
pro	S1152	a	X	12-48	with <u>pe,fl</u>
pro	S1417	a	X	12-48	with <u>pe,fl</u> ; also S1417-1(6-4)
pro	S1639	a	MC	10-50	with <u>pe,fl</u> ; also derived strain S1639-2(4-6) without <u>pe,fl</u> . Responds to proline only, not to arginine or citrulline
pro	S1677	a	MC	6-49	with <u>pe,fl</u> ; does not respond to arginine
pro	S3259	a	S	8-50	with <u>pe,fl</u>
pt	S4341	?	?	3-56	with <u>pe,fl</u>
pt	S4342	a	?	3-56	with <u>pe,fl</u> ; also available without <u>pe,fl</u> (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 <u>pe,fl</u>).
thi	S1425	a	X	4-55	with <u>pe,fl</u> ; scanty morphology; also available S1425-1(6-3) with <u>pe,fl</u> . Uses intact thiamine only; probably contains an aberration
thi	S1456	?	X	11-49	derived strain(S1456-1-1) with <u>pe,fl</u> only one available; requires intact thiamine
thi	S4335	a	X	4-56	with <u>pe,fl</u>
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 <u>pe,fl</u>
thi-1?	S4323	a	X	11-55	with <u>pe,fl</u> ; <u>thi-1</u> allelism determined by heterokaryon test
thi-2?	S4315	a	X	10-55	with <u>pe,fl</u>
thi-3?	S4324	a	X	11-55	with <u>pe,fl</u> ; <u>thi-3</u> allelism determined by heterokaryon test
thr	S4093	?	UV	6-51	also available S4093-2-16A. Not allelic with <u>ilv-1</u>
thr?	S4339	a	X	4-56	with <u>pe,fl</u>
trp	S1908	a	DMBA	8-49	with <u>pe,fl</u> ; 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 <u>pe,fl</u> ; yellow agar, uses indole
trp	S4278	a	X	6-55	with <u>pe,fl</u> ; uses anthranilate or indole
trp	S4280	a	X	12-55	with <u>pe,fl</u> ; responds to tryptophan only
trp	S4316	a	X	10-55	with <u>pe,fl</u> ; cannot use indole
trp	S4325	a	X	11-55	with <u>pe,fl</u> ; cannot use indole
trp	S4326	a	X	11-55	with <u>pe,fl</u> ; cannot use indole
trp	S4347	a	?	6-56	slow grower with <u>pe,fl</u> ; 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 <u>pe,fl</u> ; responds to no other amino acids
tyr	S4317	a	X	10-55	with <u>pe,fl</u>
tyr	S4318	a	X	10-55	with <u>pe,fl</u>

Locus	Allele	MT	Mutagen	Lyo- phile Date	Notes
tyr	S4319	a	X	10-55	with <u>pe,fl</u>
tyr	S4350	a	?	6-56	with <u>pe,fl</u>
tyr	S4351	a	?	6-56	with <u>pe,fl</u>
un	S1458(t)	a	X	12-48	with <u>pe,fl</u> ; scanty morphology; also available S1458-1-25 with <u>pe,fl</u>
unknown YE	S1350	a	X	1-49	scanty growth, with <u>pe,fl</u>
unknown YE	S1363	a	X	12-48	responds to yeast extract: with <u>pe,fl</u>
unknown YE	S1388	a	X	1-49	also single microconidial re- isolate designated S1388a
unknown YE	S1395	a	X	1-49	with <u>pe,fl</u> ; "fatty" morphology
unknown YE	S1421	a	X	1-49	with <u>pe,fl</u> ; clumpy morphology
unknown YE	S1443	a	X	1-49	with <u>pe,fl</u> ; clumpy morphology also available S1443-1(4-4) with <u>pe,fl</u>
unknown YE	S1470	a	X	1-49	with <u>pe,fl</u> ; scanty morphology also available 1470-1(7-8) with <u>pe,fl</u> in heterkaryon
unknown YE	S1496	a	X	4-49	derived strain S1496-1-1 with <u>pe,fl</u> ; slow growth
unknown YE	S2484	a	AAT	9-49	with <u>pe,fl</u>
unknown YE	S2855	a	MC	6-50	possibly cytidylic acid; with <u>pe,fl</u>
unknown YE	S3162	a	MC	8-50	with <u>pe,fl</u> ; also responds to a mixture of amino acids: tyro- sine, alanine + glutamine
unknown YE	S3204	a	S	8-50	with <u>pe,fl</u> ; also responds to a mixture of amino acids
unknown YE	S4240	?	UV	7-51	St. L treated; possible <u>ilv</u>
unknown YNA	S1052	a	X	12-48	with <u>pe,fl</u> . Responds to yeast nucleic acids
unknown YNA	S1054	a	X	1-49	with <u>pe,fl</u>
unknown YNA	S1191	a	X	12-48	with <u>pe,fl</u>
unknown YNA	S1283	a	X	12-48	with <u>pe,fl</u> , also semi-colonial, produces abundant microconidia
unknown YNA	S1300	a	X	1-49	with <u>pe,fl</u> . Single microconid-
unknown YNA	S1419	a	X	12-48	with <u>pe,fl</u> , scanty morphology also S1419-1(3-8) with <u>pe,fl</u>
unknown YNA	S1672	a	MC	5-49	with <u>pe,fl</u>
unknown YNA	S2553	a	AAT	8-49	with <u>pe,fl</u>
unknown amino acid	S1344	a	X	12-48	scanty - with <u>pe,fl</u>
unknown vitamin	S1001	a	X	2-49	in heterokaryon with S1327(met) with <u>pe,fl</u>
unknown vitamin	S1233	a	X	12-48	with <u>pe,fl</u> ; may contain aber- ration
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 <u>inl</u> . Re- sponds to hypoxanthine.
ad	Y31886	a	M	6-48	Original, with <u>inl</u> . Re- sponds 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 <u>col-2</u>
glycerol + amino acids	Y31867	a	M	10-47	Original, with <u>inl.</u> 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 <u>inl.</u> Re-isolate Y31846-1-1 w/o <u>inl</u>
met	Y31856	a	M	11-47	Original, contains <u>inl.</u> Also responds to cystine
met	Y31868	a	M	12-47	Original, contains <u>inl.</u>
met	Y31888	a	M	11-47	Original, with <u>inl</u>
moe-1	Y6821	A/a	MC	11-55	May be original, may contain al.
nic-2	Y31455	a	M	12-47	Original with <u>inl</u> from UV of Y8743-13(19-5)a
nic-3	Y31881	A	M	12-47	Derived strain only available with <u>al-2</u> (15300)
pe,fl	Y8743m,L	a		9-50	single microconidial reiso-late of original Y8743-21(13-7)8a
pe,fl	Y8743m,L	a		1-48	single microconidial reiso-late 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);col-2	c;Y5531?		S	9-70	May be original <u>su(col-2)</u> 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 <u>inl.</u> No growth at 35°
un	Y31877(t)	a	M	10-47	Original, with <u>inl.</u> No growth at 35°
un	Y31943(t)	a?	M?	6-48	Original, with <u>inl.</u> No growth at 35°
un	Y31958(t)	a	M?	10-47	Original, with <u>inl?</u> No growth at 35°
unknown amino acids	Y31840	a	M	12-47	Original, contains <u>inl.</u> Re-sponds to hydrolyzed casein at 25°, pH5, wild type at 35°, pH 7.
unknown amino acids	Y43269	?	?	6-48	Responds to mix of essen-tial 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 <u>inl.</u> Re-quires vitamin at 35°, pH 7 but not at 25°, pH 5.
vitamin conditional	Y31959(t)	a	M?	10-47	Original, with <u>inl?</u> Re-quires undetermined vita-min 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