

[A] Characterized TF				
TF	Y-name	Alternative names	Family	Regulatory function
1	AcrR	YbaH	TetR	Acriflavine resistance regulator
2	AdiY		AraC	Arginine decarboxylase regulator
3	AgaR	YhaW	DeoR	N-Acetylgalactosamine repressor
4	AlIR	YbbU	IcIR	Allantoin repressor
5	AppY		AraC	Acid phosphatase activator
6	ArcA	CpxC,Dye,FexA,Msp,Seg,SfrA	OmpR	Anoxic redox regulator
7	ArgR	XerA	ArgR	Arginine repressor
8	ArsR	ArsE	ArsR	Arsenate inducibility regulator
9	AscG	Sac	Lacl	Arbutin-salicin-cellibiose regulator
10	AsnC		AsnC	Asparagine regulator
11	AtoC		NtrC	Acetoacetate regulator
12	BaeR		OmpR	Bacterial adaptive response regulator
13	BasR	PmrA	OmpR	Bacterial adaptive response regulator
14	BetI		TetR	Betaline inhibitor
15	BirA	BioR,DhbB	BirA	Repressor of biotin operon
16	CapC		CapC	Activator of cadverine synthesis
17	CbpA		CbpA	Curved DNA-binding protein A
18	CIB	CriR,DpiA,MpdA	CIB	Activator of anaerobic citrate catabolism
19	CpxR	YiiA	OmpR	Regulator of conjugate pilus expression
20	Cra	FruC,FruR,Shl	Lacl	Catabolite repressor activator
21	CreB	YjiE	OmpR	Carbon source response regulator
22	Crp	Cap,Csm	Crp	cAMP receptor protein
23	CsqD	AgfG,CsgG	LuxR	Regulator of curli-specific genes
24	CsiR	YgaE	GntR	Carbon starvation induced regulator
25	CueR	YbbI	MerR	Cu efflux regulator
26	CusR	YlcA	OmpR	Cu sensing regulator
27	CynR		LysR	Cyanate regulator
28	CytR		Lacl	Cytidine regulator
29	Dan	YgiP	LysR	DNA-binding protein under anaerobic conditions
30	DcuR	YjdG	CIB	Regulator of C4-dicarboxylate metabolism
31	DeoR	NucR,NupG,Tsx	DeoR	Regulator of cysteine detoxification
32	DeoT	YciT	DeoR	DeoR-type regulator
33	DhaR	YcgU	NtrC	Dihydroxyacetone regulator
34	DiaA	FtsT	Xre	Division control A
35	DifB	UN	UN	[ IF-2 (translational initiation factor IF2)]
36	DicC	FtsT	DicC	Division control C
37	FadR	Dec,OleR,ThdB	GntR	Fatty acid degradation regulator
38	DmlR	YeaT	LysR	D-Malate degradation regulator
39	Dps	PexB,Vtm	Dps	DNA protection during starvation
40	DsdC		LysR	D-Serine deaminase regulator
41	EbgR		Lacl	Evolved beta-galactosidase repressor
42	EmrR	MprA	MarR	<i>E. coli</i> multidrug resistance regulator
43	EnvR	YhdK	TetR	Envelope regulator
44	EvgA		LuxR	<i>E. coli</i> homolog of <i>Bordetella</i> <i>bvgS</i>
45	ExuR		GntR	Exuronate repressor
46	FhIA		NtrC	Formate hydrogen lyase activator
47	Fis	Nbp	Fis	Factor for inversion stimulation
48	FriR	YfhR	GntR	Fructolysine regulator
49	FrvR	YiiH	AraC	Fructose-like transport regulator
50	FucR		DeoR	Fucose regulator
51	Fur		Lacl	Ferric uptake regulator
52	GaiR		Fur	Galactose repressor
53	GatR	GatR (full-size GatR)	DeoR	Galactitol regulator
54	GatR2	GatR (N-terminal fragment-2)	DeoR	Galactitol regulator
55	GlpR		DeoR	Glycerol-3-phosphate repressor
56	QseF	YfhA	GlrR	Quorum-sensing regulator F
57	GusR	UldR	TetR	Glucuronides repressor
58	HcaR	YfhT	LysR	Hydrocinnamic acid regulator
59	HdfR	YifA,YifD	LysR	Hns-dependent hldC regulator
60	HexR	YebK	RpiR	Hexose regulator
61	Hha		H-NS	High hemolysin activity
62	HigA	YgiM	T-AT	Antitoxin of HigB toxin
63	HipB		T-AT	Antitoxin of HipA toxin
64	Hnr*	YchL	UN	[ Regulator of RpoS]
65	Hns	BglY,FimG,OzmZ,PilG,TopS,VirR	H-NS	Histone-like nucleoid structuring protein
66	HupA	HU- $\alpha$ ,HU-2	HU	Histone-like protein HU-A
67	HupB	DepA,DpeA,HU- $\beta$ ,HU-1	HU	Histone-like protein HU-B
68	ArgP	Can,CanR,IcIA	LysR	Arginine protein
69	IcIR		IcIR	Isocitrate lyase regulator
70	IdnR	YjgS	GntH,GntS	L-Idonate regulator
71	IhIA	Hid,HimA,IHF- $\alpha$	HU	Integration host factor A
72	IhIB	FimD,HIP,IHF- $\beta$	HU	Integration host factor B
73	IlyY		LysR	Isoleucine-valine regulator
74	KdpE		OmpR	K <sup>+</sup> -dependent ATPase regulator
75	Lacl		Lacl	Lactose inhibitor
76	LctR	LidR,Lct	GntR	Lactate regulator
77	LeuO		LysR	Lactate regulator
78	LrhA	GenR,HexA	LysR	LysR homologue A
79	Lrp	AlsB,LbiA,LivR,LstR,Mbf,OppI,RbIA	AsnC	Leucine-responsive regulatory protein
80	LysR		LysR	Lysine regulator
81	MaiI		Lacl	Maltose repressor
82	MalP	MalA,Blu	UN	[Maltodextrin phosphorylase]
83	MarR	CfbB,InaR,SoxQ	MarR	Multiple antibiotic resistance B
84	McbR	YncC	GntR	MqsR-controlled colanic acid and biofilm regulator
85	Mic	DgsA	NagC	Regulator to make large conolles
86	MirA	YehV	MerR	MerR-like regulator of curli production
87	NadR	NadI,PnuA,NMN adenylyltransferase	Trigger	Regulator of NAD synthesis
88	MntR	YbiQ	DtxR	Mn <sup>2+</sup> transport regulator
89	ModE	ChlD,ModR	ModE	Molybdenum regulator
90	NagC	NagR	NagC	N-Acetylgalactosamine regulator
91	NarR	YhcK	GntR	N-Acetylneuraminic acid regulator
92	NarL	FrdR,NarR	LuxR	Nitrate/nitrite response regulator NarL
93	NarP		LuxR	Nitrate/nitrite response regulator NarP
94	NemR	YdhM	TetR	N-Ethylmaleimide reductase repressor
95	NhaR	YaaB	LysR	Na <sup>+</sup> /H <sup>+</sup> antiporter regulator
96	NorR	YgaA	NtrC	NO reduction and detoxification regulator
97	NtrC	GlnG,GlnT	NtrC	Nitrogen regulation C
98	OmpR	Cry,Kmt,OmpB	OmpR	Outer membrane protein regulator
99	OraA*	RecX	UN	[RecA inhibitor]
100	OxyR	MomR,Mor	LysR	Oxidative stress regulator
101	PaaX	YdbY	GntR	Phenylacetic acid regulator
102	PdhR	AceC,GenA	GntR	Pyruvate dehydrogenase complex regulator
103	PepA	CarP,XerB,Aminopeptidase A/I	Trigger	Peptidase regulator
104	PerR		LysR	Peroxide response regulator
105	PhnF		GntR	Phosphonate regulator F
106	PhoB*	PhoRc,PhoT	OmpR	Phosphonate regulator B
107	CheB*		UN	[Chemotaxis regulator-Glu methyltransferase]
108	PrpR	YahP	NtrC	Propionate regulator
109	PsjF	YcjB	NtrC	Phage shock protein F
110	PuIA	PoaA	Trigger	Proline utilization regulator
111	PuuR	YjcJ	Xre	Putrescine utilization and transport regulator
112	QseA	YhcS	LysR	Quorum-sensing regulator A
113	QseB	YgiX	OmpR	Quorum-sensing regulator B
114	QseD	YjiE	LysR	Quorum-sensing regulator D
115	RbsR		Lacl	Ribose repressor
116	RcsA	CpsR	LuxR	Regulator capsule synthesis A
117	RcsB	ViaA	LuxR	Regulator capsule synthesis B
118	SfsB	Nlp	SfsA	Sugar fermentation stimulation regulator B
119	RhaS	RhaC2	AraC	Rhamnose regulator
120	Rob	CbpB,RobA	AraC	Right origin binding protein

121	RpiR	YjcY	AlsR	RpiR	Ribosephosphate isomerase regulator
122	RstA		UrpT	OmpR	Phage RS-region encoded TF
123	RtcR	YhgB		NtrC	RNA terminal phosphate cyclase regulator
124	RutR	YcdC		TetR	Pyrimidine utilization regulator
125	SrlA		UvrX	LuxR	Suppressor of the cell division inhibitor
126	SfsA		Sfs,Sfs1	SfsA	Sugar fermentation stimulation regulator A
127	SlyA			MarR	Hemolytic protein in <i>Salmonella</i>
128	SoxR		MarC	MarR	Superoxide response protein R
129	SoxS			AraC	Superoxide response protein S
130	SrlR		GutR	DeoR	Sorbitol repressor
131	StpA		Him3,HnsB,Rsv	H-NS	Suppressor of <i>td</i> phenotype A
132	TorR			OmpR	Regulator of TMAO reduction
133	TreR			Lacl	Trehalose repressor
134	SlmA	YicB	Ttk	TetR	Synthetically lethal with a defective Min system
135	TyrR			NtrC	Tyrosine repressor
136	UhpA			LuxR	Regulator of uptake of hexose phosphates
137	UlaR	YjfQ		DeoR	Utilization of L-ascorbate regulator
138	UspA			UN	[Universal stress response regulator A]
139	UspC			UN	[Universal stress response regulator B]
140	UvrY	YecB		LuxR	Regulator of repair from UV damage
141	UxuR			GntR	Hexuronate regulator
142	ZntR	YhdM		MarR	Zinc transporter regulator
143	ZraR		HydG	NtrC	Zinc resistance-associated regulator
144	Zur	YibK		Fur	Zinc uptake regulator
Total, 144 species					

#### [B] Uncharacterized TFs

	TF	Y-name	Alternative names	Family	Regulatory function
1	YafC			LysR	
2	XynR	Yagl		IclR	Regulator of xylonate catabolism
3	YafA			UN	[c-di-GMP phosphodiesterase]
4	YahB			LysR	
5	YahD			UN	[Ankyrin repeat protein]
6	DecR	YbaO		AsnC	Regulator of cysteine detoxification
7	YbbO			UN	[NAPD-dependent aldehyde reductase]
8	YbdO			LysR	
9	YbeF			LysR	
10	CecR	YbiH		TetR	Regulator of cefoperazone-chloramphenicol sensitivity
11	RcdA	YbjK		TetR	Regulator of <i>csqD</i>
12	YcaN			LysR	
13	ComR	YcfQ		TetR	Copper permeability regulator
14	PgrR	YcjZ		LysR	Regulator of peptidoglycan recycling
15	Ydci			LysR	
16	SutR	YdcN		Xre	Regulator of sulfur utilization
17	YdfH			GntR	
18	YdhB			LysR	
19	NimR	YeaM		AraC	Regulator of 2-imidazole sensitivity
20	HprR	YedW		OmpR	Hydrogen peroxide response regulator
21	YeeW			GntR	
22	BtsR	YehT		LyTR	Brenztraubensaure
23	YaiE			LysR	
24	RhmR	YfaX		IclR	<i>E. coli</i> PMV-1 regulator
25	YfeR			LysR	
26	YfhH			RpiR	
27	YfiE			LysR	
28	YgaV			ArsR	
29	YgeK			LuxR	
30	Ygfb			UN	[UPF0149 family protein]
31	Ygfl			LysR	
32	YhaJ			LysR	
33	YhjC			LysR	
34	YiaG			Xre	
35	YiaJ			IclR	
36	YiaU			LysR	
37	YidL			AraC	
38	YidP			GntR	
39	YidZ			LysR	
40	YieP			GntR	
41	YihW			DeoR	
42	YijO			AraC	
43	YidC			TetR	
44	BdcR	YigJ		TetR	Biofilm dispersal via c-di-GMP
45	YjiM			UN	[2-Hydroxyglutaryl-CoA dehydratase]
46	YiiR			Trigger	
47	YkgA			AraC	
48	RclR	YkgD		AraC	Reactive chloride resistance regulator
49	YneJ			LysR	
50	YnfL			LysR	
51	YpdB			LyTR	
52	YqhC			AraC	
53	YphH			NagC	
54	YdcR			Trigger	
55	YciT	DeoT		DeoR	DeoR-type regulator
Total, 55 species					