

## СПИСОК ТАКСОНОМИИ БАКТЕРИЙ И СОКРАЩЕНИЙ

Phylum/Class	Order	Bacteria	Abbr.					
Gamma-proteobacteria	Enterobacteriales	<i>Escherichia coli</i>	EcE					
		<i>Salmonella typhi</i>	t					
		<i>Salmonella enterica</i>	STY					
				<i>Salmonella typhimurium</i>	STM			
				<i>Klebsiella pneumoniae</i>	KPN			
				<i>Yersinia pestis</i>	YP			
				<i>Yersinia mollaretii</i>	Ymo			
				<i>Yersinia bercovieri</i>	YberA			
				<i>Yersinia pseudotuberculosis</i>	Yps			
				<i>Yersinia frederiksenii</i>	YfreA			
				<i>Yersinia enterocolitica</i>	YE			
				<i>Yersinia intermedia</i>	YintA			
				<i>Citrobacter koseri</i>	CKO			
				<i>Shigella dysenteriae</i>	SDY			
				<i>Shigella flexneri</i>	SFV			
				<i>Shigella boydii</i>	SbBS			
				<i>Shigella sonnei</i>	SSO			
				<i>Enterobacter sp.638</i>	Ent			
				<i>Enterobacter sakazakii</i>	ESA			
				<i>Erwinia carotovora</i>	ECA			
				<i>Serratia proteamaculans</i>	SG			
				<i>Photobacterium luminescens</i>	plu			
				<i>Sodalis glossinidius</i>	Spro			
			Pasteurellales	<i>Pasteurella multocida</i>	PM			
				<i>Haemophilus influenzae</i>	NTHI			
				<i>Mannheimia haemolytica</i>	Mannh			
				<i>Mannheimia succiniciproducens</i>	MS			
				<i>Actinobacillus pleuropneumoniae</i>	APL			
			Vibrionales	<i>Vibrio fischeri</i>	VF			
				<i>Vibrio cholerae</i>	VC			
				<i>Vibrio parahaemolyticus</i>	VP			
				<i>Vibrio vulnificus</i>	VVI			
				<i>Vibrio angustum</i>	VAS			
				<i>Vibrio shilonii</i>	VSAK			
				<i>Vibrio harveyi</i>	AIQ			
				<i>Vibrio sp. Ex25</i>	VEx2w			
				<i>Vibrio alginolyticus</i>	V12G01			
				<i>Vibrio splendidus</i>	V12B01			
				<i>Vibrionales bacterium</i>	VSWAT3			
		<i>Photobacterium profundum</i>	P3TCK					
		<i>Photobacterium sp. SKA34</i>	SKA					
	Alteromonadales	<i>Idiomarina loihiensis</i>	IL					
		<i>Moritella sp. PE36</i>	PE36					
		<i>Shewanella oneidensis</i>	SO					
		<i>Shewanella sp. MR-4</i>	Shewmr4					
		<i>Shewanella baltica</i>	Sbal					
		<i>Shewanella putrefaciens</i>	Sputcn32					
		<i>Shewanella sediminis</i>	Ssed					
		<i>Shewanella frigidimarina</i>	Sfri					
		<i>Shewanella denitrificans</i>	Sden					
		<i>Shewanella loihica</i>	Shew					
		<i>Shewanella pealeana</i>	Spea					
		<i>Shewanella woodyi</i>	Swoo					
		<i>Shewanella amazonensis</i>	Sama					
		<i>Colwellia psychrerythraea</i>	CPS					
		<i>Alteromonadales bacterium</i>	ATW7					
		<i>Pseudoalteromonas haloplanktis</i>	PSHA					
		<i>Pseudoalteromonas tunicata</i>	PTD2					
		<i>Pseudoalteromonas atlantica</i>	Patl					
		<i>Alteromonas macleodii</i>	MADE					
		<i>Psychromonas ingrahamii</i>	Ping					
		<i>Psychromonas sp. CNPT3</i>	PCNPT3					
	Aeromonadales	<i>Aeromonas salmonicida</i>	ASA					
		<i>Aeromonas hydrophila</i>	AHA					
Firmicutes	Bacillales	<i>Bacillus halodurans</i>	BH					
		<i>Bacillus cereus</i>	Bcer					
		<i>Bacillus thuringiensis</i>	BT9727; BALH					
				<i>Bacillus anthracis</i>	BAT1			
				<i>Bacillus weihenstephanensis</i>	BcerKBAB4			
				<i>Listeria welshimeri</i>	lwe			
				<i>Listeria monocytogenes</i>	lmo			
				<i>Listeria innocua</i>	lin			
				<i>Staphylococcus aureus</i>	SA			
				<i>Staphylococcus epidermidis</i>	SERP			
				<i>Staphylococcus haemolyticus</i>	SH			
				<i>Staphylococcus saprophyticus</i>	SSP			
				<i>Geobacillus thermodenitrificans</i>	GTNG			
			Clostridiales	<i>Clostridium difficile</i>	CD			
			Lactobacillales	<i>Lactococcus lactis</i>	LACR			
		Bacteroidetes/Chlorobi	Chlorobiales	<i>Chlorobium tepidum</i>	CT			
				Bacteroidales	<i>Bacteroides fragilis</i>	BF		
					<i>Bacteroides vulgatus</i>	BVU		
					<i>Bacteroides thetaiotaomicron</i>	BT		
					<i>Bacteroides uniformis</i>	BACUNI		
					<i>Bacteroides ovatus</i>	BACOVA		
					<i>Bacteroides caccae</i>	BACCAC		
					<i>Parabacteroides distasonis</i>	BDI		
					<i>Parabacteroides merdae</i>	PARMER		
					<i>Porphyromonas gingivalis</i>	PGN		
					Flavobacteriales	<i>Flavobacterium psychrophilum</i>	FP	
						<i>Flavobacterium johnsoniae</i>	Fjoh	
						<i>Flavobacteria bacterium</i>	FBBAL38	
						<i>Flavobacteriales bacterium</i>	FB2170	
						<i>Croceibacter atlanticus</i>	CA2559	
						<i>Gramella forsetii</i>	GFO	
						<i>Robiginitea biformata</i>	RB2501	
						<i>Dokdonia donghaensis</i>	MED134	
						<i>Leeuwenhoekella blandensis</i>	MED217	
						<i>Psychroflexus torquus</i>	P700755	
						<i>Polaribacter irgensii</i>	PI23P	
						<i>Polaribacter dokdonensis</i>	MED152	
						Sphingobacteriales	<i>Cytophaga hutchinsonii</i>	CHU
							<i>Microscilla marina</i>	M23134
<i>Algoriphagus sp. PR1</i>	ALPR1							
	environmental samples				unidentified eubacterium	SCB49		
Thermotogae	Thermotogales				<i>Thermotoga maritima</i>	TM		
					<i>Thermotoga petrophila</i>	Tpet		
Cloroflexi	Herpetosiphonales				<i>Herpetosiphon aurantiacus</i>	Haur		





Рис. 8. Классическая аттенуаторная регуляция у типа Bacteroidetes оперона *trpE*. Старт-кодон и лидерный пептид выделены полужирным. Стоп-кодон выделен полужирным курсивом. Терминатор выделен желтым цветом, антитерминатор выделен одной чертой.

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Bacteroidia
BF_trpE      AUGCAAGUAAAUAUCAUAUUGGUGUGUGGCGCCCGUUACAACUCCGACAGUCGUAAGGGAGCAGCGCUCGUAUGUUAUAUCCUCAUUAAGAUAUAACAGAA*****UUUAGAAAAGAGCCUGUCGCA*CCUGCGACGGGGCUCUUUUUUUUAA
BVU_trpE     *****AUGGUAAAUAUCAUAUUGGUGUGGCGUUUCUUACAACUAAACAAGUCGUAAGGGAACCAGACCAUGUAUAUAUACCGUGACAUUUCAAAGGAUAUUC*****AAACUGAAGGCCUGUCGUA**CUUACGACAGGCCUUUUUUCGUUAG
Flavobacteria
FP_trpE      *****AUGAACACAUUUUAAACAUAUCUUGGUGUGGGAAUAUUUACGUCAAACGUCGUGAACUAUCCUCUAUAUUGUAUUUUUAAAAACU*****CAAUAUAAAAAAGGCCUUGUCAAUCA**CACAAGCCUUUUUUUGUGCA
Fjoh_trpE    *****AUGAACAUAUCUUGGUGUGGGAAACAUUUACGUCAAACGUCGUGAACGAAGCUUCCUAUGGUUUUU*****CAAACUAUAAAAUAAAAGGCCUUGUCA*UCA**CACAAGCCUUUUUUUU*****
FB2170_trpE  *****AUGAAAAACAGAACAAUAUAUCAUGGUGUGGGAAGUAACUUACGAAAAACGUCGUGAGCAAGCAUCAUUGUAGUAAA*****ACUAUAUAAAAAAGGCCUUGUCAAUCA**CACAAGCCUUUUUUAUAUAUA
FBBAL38_trpE *****AUGAUUUCAUUUUAAACAUAUCUUGGUGUGGUGUCUAACUUACGUCGAACUUCGUGAGCGAAUCCUGCUAUAGUAUCA*****UUUAAAACCAAUAAGAAAAGGCCUUGUCAAUCA**CACAAGCCUUUUUUAUUGCC
GFO_trpE     *****AUGAAAAAAUAACUGGUGUGGGAAUAACUUACGUCAAACUUCGUGAGCUAACUGCUAUUUUCAUAUAAGAA*****AUUAAAAGGCCUUGUUCA**CACAAGCCUUUUUUAUUGCA
RB2501_trpE  *****AUGAAAACAUUGAUACAACAACUGGUGUGGGUAUCUGAUCGCGGAACGUCGUGACCUGAGCCCCCUGUGUUUGUCCACCAUA*****CCUAGGCCUUGUCUGUCA**CACAGGCCUUUUUAAUUUUU
MED134_trpE  *****AUGAAAAACAUAACAGUACAUAUCUUGGUGUGGGAAUAACAACAUAUCGUUGUCGUAAGCACGCACCUAUGUACCAUUAUA*****CAGCCUGUCUUA**CACAGGCCUUUUUUUUUUUUGUCU
MED217_trpE  *****AUGAAAAACAACAAGUAAUAUCUUGGUGUGGGAAUCUCGCAACAGUAAUGUCGUGAAACAACCUUGUAUUUAAAUAUUAAUAAC*****UGAAGGCCUGUCUCA**CACAGGCCUUUUUUUGUUUCGC
P700755_trpE *****AUGCUUAAAAAUAACAUAUCUUGGUGUGGUGUCUUUAUACGUCAAACGUCGUGACUUAGAUCUCCUGCUAUGUAAAUAUAUCA*****UAAAGGCCUUGUCUCA**CACAAGCCUUUUUUCAUUUAU
MED152_trpE  AUGAAAAACAGUAUAACAUAUCUUGGUGUGGGAACUCUCUUAACUAAUAAGUGAGUUUAUACCUGUAUGUAAAUAUAU*****UAAAAGGCCUUAUCUCA**CGAUAAGCCUUUUCAAUCAA
PI23P_trpE   AUGAAAAUAUAUCAAAACAAACUGGUGUGGGAACUCUCUUAUAUCAUAAGUGAGAUGAUCUUAUUGUUUAUA*****CAUAUAAAAAAGGCCUUAUCA**CGAUAAGCCUUUUUAUAUAU
Sphingobacteria
CHU_trpE     ***AUGAAAACAUUAACAGGAACUAACAUAUCUUGGUGUGCGGUGAACUAAUCAGUUCGUGAACAUUGCUGCUGUGUCUGUCUUUG*****AAAAUAUACAAAAAAGAGCCUUGUCUU**UCACGCAAGCCUUUUUAUUUAU
M23134_trpE  AUGAUGAAAAAAGUUACAUAUACAGAGUUGGUGUGGGCACAAAAGAGAACUCUCUUCUGUGAAUAGCCCCGUUGUAUACGUGUAAAACUUUAUAUAUAAGAUUAAGCAAAAAGGCCUUCUGU**UCACAGGAAGCCUUUUUGCGUUUUG
ALPR1_trpE   *****AUGAAAACAUUCGCAACAUAUAUUGGUGUGGCAUUCUUUAUUCUCCAAAAGGAAGUUAGAAAGCCCGUGCAUAUAUAUUUUGCG*****UACGAUAUAGUAUAAAAGGCCUUAUCUGGAU*UUCCGGUAAGCCUUUUUAUUGAAA
Bacteroidetes; environmental samples; unidentified eubacterium SCB49
SCB49_trpE   *****AUGCAACAACAACAUAUCUUGGUGUGGGAAUAACUCUGCACAAAAUCGUGAGCUAAGCACUAUUUGGUUAUAUAUCA*****CAAAGGCCUUGUCAU**CACGACAAGCCUUUUUUUUUAUU

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Рис. 9. Классическая аттенуаторная регуляция у типа Thermotogae оперона *hisS*. Старт-кодон и лидерный пептид выделены полужирным. Стоп-кодон выделен полужирным курсивом. Терминатор выделен желтым цветом, антитерминатор выделен одной чертой.

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>Thermotoga maritima TM_hisS
AUGUUUUUCGGUGAACACCACCAUCAUUGCUACGGCCCGCGGUUUUCCACCGGGUGUGUGAUGGUGGGAGAUCGCACGGGCCACGUCGAGAAGACGUGGCCUUUUUGUUUAUCGAAUAAAACCGCAAGAAGACCAUUUUCUAU

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Рис. 10. Классическая аттенуаторная регуляция у типа Thermotogae оперона *trpE*. Старт-кодон и лидерный пептид выделены полужирным. Стоп-кодон выделен полужирным курсивом. Терминатор выделен желтым цветом, антитерминатор выделен одной чертой.

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>Thermotoga maritima TM_trpE, Thermotoga petrophila Tpet_trpE
GUGAGAGGAGUCAUGGUGGUAUUUGAAACAGGUGAGCGAGACGCGGGUAAAAACGAUGGACAAACAUAUUGGAGAACAUCAGAAACUUCGACUGGCAGAAUAUUUCGGAAGUGAAGAAAGAAAGAAAGUAACUUUGAGUGGAGGGGUUGCUUUUCAAAGA

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Рис. 11. Классическая аттенуаторная регуляция у типа Chloroflexi оперона *ilvD*. Старт-кодон и лидерный пептид выделены полужирным. Стоп-кодон выделен полужирным курсивом. Терминатор выделен желтым цветом, антитерминатор выделен одной чертой.

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>Herpetosiphon aurantiacus Haur_ilvD
AUGAUAUAUCGUCCCGGUUUAUAUAUAUAGCAACCUCCUUAGCCUCUCGUAUUCGUCUCAUUACGCGGUCACUUUUGUGUGGGAGGGGCUAACAAGCCUCGCGGGUAGUUCAAAGAACUAGCCCCUCCAAUCGGGAGGGCCUUUGAUUUUGUAUUAAGUUAGCUUCUGGAGGAUAAACACAUGCGGAACUUGU

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