S3 Table. Key enzymes encoded in the *Alcaligenes aquatilis* BU33N genome associated with aromatic hydrocarbon degradation and biosurfactant synthesis from Rast and Eggnog annotation.

Pathway	Protein/Enzyme	EC number
Benzoate degradation	benzoate 1, 2-dioxygenase alpha subunit	EC 1.14.12.10
	benzoate 1, 2-dioxygenase beta subunit	EC 1.14.12.10
	Ortho-halobenzoate 1, 2-dioxygenase OhbA & OhbB	
	1, 2-dihydroxycyclohexa-3, 5-diene-1-carboxylate dehydrogenase	EC 1.3.1.25
	4-hydroxybenzoate transporter	
	P-hydroxybenzoate hydroxylase	EC 1.14.13.2
	Ring hydroxylating dioxygenase, alpha subunit	EC 1.14.12.13
	4-carboxymuconolactone decarboxylase	EC 4.1.1.44
	3-polyprenyl-4-hydroxybenzoate carboxy-lyase UbiX	EC 4.1.1.-
	3-polyprenyl-4-hydroxybenzoate carboxy-lyase	EC 4.1.1.-
	4-hydroxybenzoate polyprenyltransferase	EC 2.5.1.39
	4-carboxymuconolactone decarboxylase	EC 4.1.1.44
	Glutaryl-CoA dehydrogenase	EC 1.3.99.7
	Protocatechuate 4,5-dioxygenase	EC:1.13.11.3
	protocatechuate 4,5-dioxygenase subunit alpha	EC:1.13.11.3

	enoyl-CoA hydratase	EC:4.2.1.17
Catechol	catechol 1, 2-dioxygenase	EC 1.13.11.1
	muconatecycloisomerase	EC 5.5.1.1
	muconolactone isomerase	EC 5.3.3.4
	beta-ketoadipate enol-lactone hydrolase	EC 3.1.1.24
	3-oxoadipate CoA-transferase subunit A	EC 2.8.3.6
	3-oxoadipate CoA-transferase subunit B	EC 2.8.3.6
	beta-ketoadipyl CoA thiolase	EC 2.3.1.-
Phenanthrene/Ketoadipate	Ring hydroxylating dioxygenase, alpha subunit	EC 1.14.12.13
	3-phenylpropionate dioxygenase beta subunit	EC 1.14.1.-
	1,2-dihydroxycyclohexa-3,5-diene-1-carboxylate dehydrogenase	EC 1.3.1.25
	Biphenyl-2,3-diol 1,2-dioxygenase	EC 1.13.11.39
	Maleylacetoacetate isomerase	EC 5.2.1.2
	Possible carboxymuconolactone decarboxylase family protein	EC 4.1.1.44
	4-hydroxy-2-oxovalerate aldolase	EC 4.1.3.39
	4-carboxymuconolactone decarboxylase	EC 4.1.1.44
	Acetaldehyde dehydrogenase	(EC 1.2.1.10)
	Acetaldehyde dehydrogenase, acetylating,	EC 1.2.1.10

	carboxymuconolactone decarboxylase	
	Aldehyde dehydrogenase	EC 1.2.1.3
	Benzoate 1,2-dioxygenase beta subunit	EC 1.14.12.10
	Benzoate 1,2-dioxygenase alpha subunit	EC 1.14.12.10
	Muconate cycloisomerase	EC 5.5.1.1
	Homogentisate 1,2-dioxygenase	EC 1.13.11.5
	Ortho-halobenzoate 1,2-dioxygenase OhbA	
	Ortho-halobenzoate 1,2-dioxygenase OhbB	
	Muconate cycloisomerase	EC 5.5.1.1
	carboxymuconolactone decarboxylase	
	Beta-ketoadipate enol-lactone hydrolase	EC 3.1.1.24
Dioxin degradation	Acetaldehyde dehydrogenase	EC 1.2.1.10
	2-keto-4-pentenoate hydratase	EC 4.2.1.80
	Alcohol dehydrogenase	EC 1.1.1.1
	Biphenyl-2,3-diol 1,2-dioxygenase	EC 1.13.11.39
	2-hydroxy-6-oxo-6-phenylhexa-2,4-dienoate hydrolase	EC 3.7.1
	2-keto-4-pentenoate hydratase	EC 4.2.1.80
	Acetaldehyde dehydrogenase, acetylating	EC 1.2.1.10
	4-hydroxy-2-oxovalerate aldolase	EC 4.1.3.39

	2-keto-4-pentenoate hydratase	EC 4.2.1.80
	Salicylate hydroxylase	EC 1.14.13.1
	4-hydroxy-2-oxovalerate aldolase	EC4.1.3.39
Salicylate and gentisate catabolism	Salicylate hydroxylase	EC 1.14.13.1
	Fumarylacetoacetase	EC 3.7.1.2
	Maleate cis-trans isomerase	EC 5.2.1.1
	Gentisate 1,2-dioxygenase	EC 1.13.11.4
	salicylate esterase	
	Homogentisate 1,2-dioxygenase	EC 1.13.11.5
	Fumarylacetoacetase	EC 3.7.1.2
Phenol hydroxylase,	Phenol hydroxylase, assembly protein DmpK	
	Phenol hydroxylase, P1 oxygenase component DmpL	EC 1.14.13.7
	Phenol hydroxylase, P2 regulatory component DmpM	EC 1.14.13.7
	Phenol hydroxylase, FAD- and [2Fe-2S]	
	Phenol hydroxylase, P3 oxygenase component DmpN	EC 1.14.13.7
	Phenol hydroxylase, P4 oxygenase component DmpO	EC 1.14.13.7
Biosurfactant synthesis	dTDP-4-dehydrorhamnose 3,5-epimerase	EC 5.1.3.13
	3-oxoacyl-[acyl-carrier protein] reductase	EC 1.1.1.100
	Malonyl CoA-ACP transacylase	EC 2.3.1.39

	peptidoglycan glycosyltransferase	EC 2.4.1.129
	Phosphomannomutase	EC 5.4.2.8
	Aspartokinase	EC 5.2.1.1