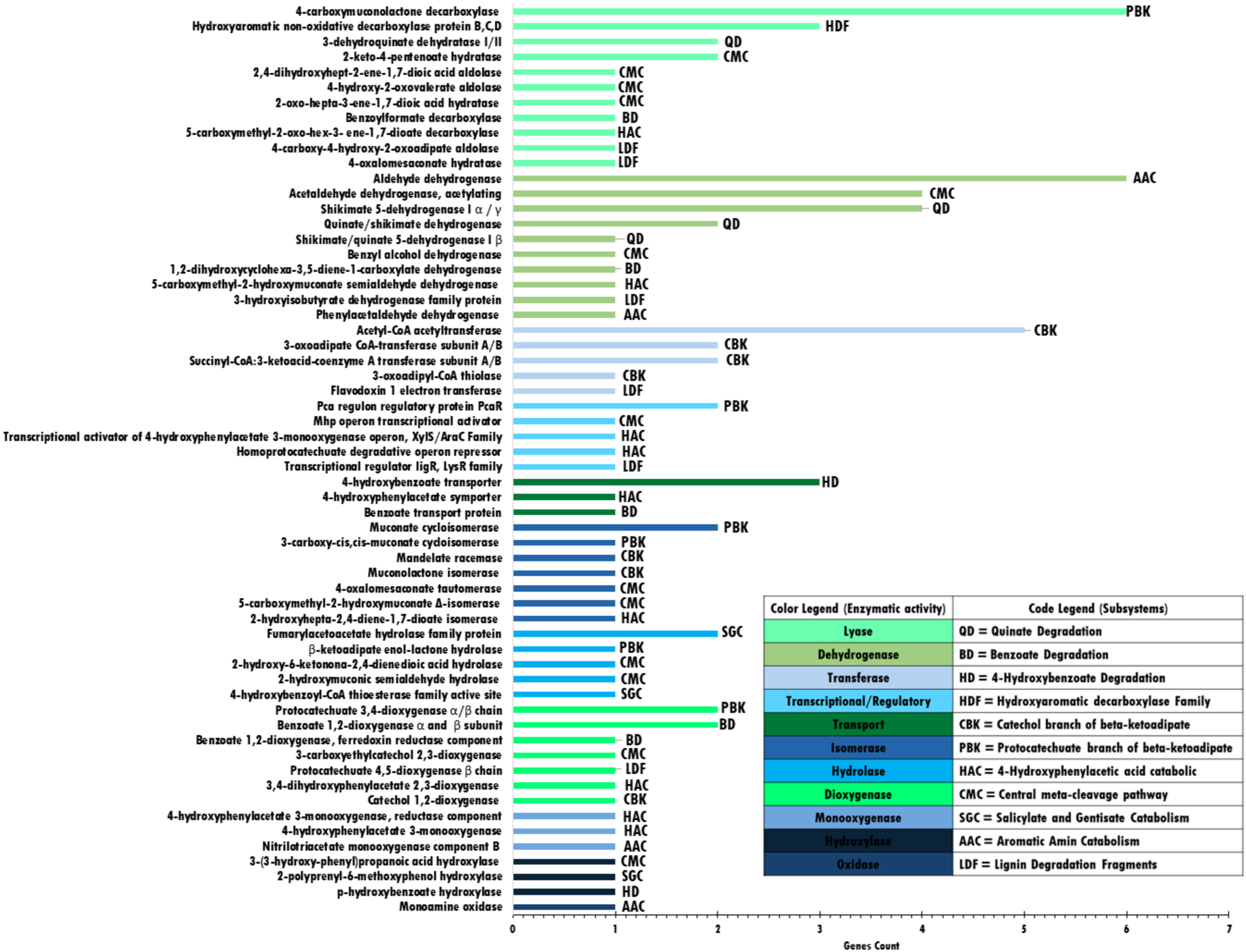
4-carboxymuconolactone decarboxylase
PBK
Hydroxyaromatic non-oxidative decarboxylase protein B,C,D
HDF
3-dehydroquinate dehydratase I/II
QD
2-keto-4-pentenoate hydratase
CMC
2,4-dihydroxyhept-2-ene-1,7-dioic acid aldolase
CMC
4-hydroxy-2-oxovalerate aldolase
CMC
2-oxo-hepta-3-ene-1,7-dioic acid hydratase
CMC
Benzoylformate decarboxylase
BD
5-carboxymethyl-2-oxo-hex-3- ene-1,7-dioate decarboxylase
HAC
4-carboxy-4-hydroxy-2-oxoadipate aldolase
LDF
4-oxalomesaconate hydratase
LDF
Aldehyde dehydrogenase
AAC
Acetaldehyde dehydrogenase, acetylating
CMC
Shikimate 5-dehydrogenase I α / γ
QD
Quinate/shikimate dehydrogenase
QD
Shikimate/quinate 5-dehydrogenase I β
QD
Benzyl alcohol dehydrogenase
CMC
1,2-dihydroxycyclohexa-3,5-diene-1-carboxylate dehydrogenase
BD
5-carboxymethyl-2-hydroxymuconate semialdehyde dehydrogenase
HAC
3-hydroxyisobutyrate dehydrogenase family protein
LDF
Phenylacetaldehyde dehydrogenase
AAC
Acetyl-CoA acetyltransferase
CBK
3-oxoadipate CoA-transferase subunit A/B
CBK
Succinyl-CoA:3-ketoacid-coenzyme A transferase subunit A/B
CBK
3-oxoadipyl-CoA thiolase
CBK
Flavodoxin 1 electron transferase
LDF
Pca regulon regulatory protein PcaR
PBK
Mhp operon transcriptional activator
CMC
Transcriptional activator of 4-hydroxyphenylacetate 3-monooxygenase operon, XylS/AraC Family
HAC
Homoprotocatechuate degradative operon repressor
HAC
Transcriptional regulator ligR, LysR family
LDF
4-hydroxybenzoate transporter
HD
4-hydroxyphenylacetate symporter
HAC
Benzoate transport protein
BD
Muconate cycloisomerase
PBK
3-carboxy-cis,cis-muconate cycloisomerase
PBK
Mandelate racemase
CBK
Muconolactone isomerase
CBK
4-oxalomesaconate tautomerase
CMC
5-carboxymethyl-2-hydroxymuconate Δ-isomerase
CMC
2-hydroxyhepta-2,4-diene-1,7-dioate isomerase
HAC
Fumarylacetoacetate hydrolase family protein
SGC
β-ketoadipate enol-lactone hydrolase
PBK
2-hydroxy-6-ketonona-2,4-dienedioic acid hydrolase
CMC
2-hydroxymuconic semialdehyde hydrolase
CMC
4-hydroxybenzoyl-CoA thioesterase family active site
SGC
Protocatechuate 3,4-dioxygenase α/β chain
PBK
Benzoate 1,2-dioxygenase α and β subunit
BD
Benzoate 1,2-dioxygenase, ferredoxin reductase component
BD
3-carboxyethylcatechol 2,3-dioxygenase
CMC
Protocatechuate 4,5-dioxygenase β chain
LDF
3,4-dihydroxyphenylacetate 2,3-dioxygenase
HAC
Catechol 1,2-dioxygenase
CBK
4-hydroxyphenylacetate 3-monooxygenase, reductase component
HAC
4-hydroxyphenylacetate 3-monooxygenase
HAC
Nitrilotriacetate monooxygenase component B
AAC
3-(3-hydroxy-phenyl)propanoic acid hydroxylase
CMC
2-polyprenyl-6-methoxyphenol hydroxylase
SGC
p-hydroxybenzoate hydroxylase
HD
Monoamine oxidase
AAC
0
1
2
3
4
5
6
7
Genes Count
Color Legend (Enzymatic activity)
Code Legend (Subsystems)
Lyase
QD = Quinate Degradation
Dehydrogenase
BD = Benzoate Degradation
Transferase
HD = 4-Hydroxybenzoate Degradation
Transcriptional/Regulatory
HDF = Hydroxyaromatic decarboxylase Family
Transport
CBK = Catechol branch of beta-ketoadipate
Isomerase
PBK = Protocatechuate branch of beta-ketoadipate
Hydrolase
HAC = 4-Hydroxyphenylacetic acid catabolic
Dioxygenase
CMC = Central meta-cleavage pathway
Monooxygenase
SGC = Salicylate and Gentisate Catabolism
Hydroxylase
AAC = Aromatic Amin Catabolism
Oxidase
LDF = Lignin Degradation Fragments