



<i>Pseudomonas putida</i> mt-2	3-Trifluoromethylbenzoate	2-Hydroxy-6-oxo-7,7,7-trifluoro-hepta-2,4- <i>cis,cis</i> -dienoate	[13]
<i>Pseudomonas pseudoalcaligenes</i> KF707	4,4'-Difluorobiphenyl	3-Fluoro-2-hydroxypenta-2,4-dienoate ( <i>Z</i> )-3-Fluoro-2-oxopent-3-enoate 3-Fluoro-4-hydroxy-2-oxovalerate Fluoropyruvate	[14]
<i>Ralstonia</i> sp. FD-1	4-Fluoroaniline	2-Hydroxy-5-fluoromuconic semialdehyde 5-Fluoro-2-oxo-4-pentenoate 5-Fluoro-2-oxo-4-hydroxypentanoate	[15]
<i>Pseudomonas aeruginosa</i> IE653	4-Fluorobenzyl alcohol	4-Fluorobenzoate 4-Fluorophenol 3-Fluoromuconate	[16]
<i>Pseudomonas putida</i>	5,5-Difluorocamphor	5,5-Difluoro-9-hydroxycamphor	[17]
<i>Pseudomonas fluorescens</i> N-9	5-Fluoronicotinate	Fluorofumarate Fluoropyruvate	[18]
<i>Nectria haematococca</i>	5-Fluorouracil	2-Fluoro-3-aminopropionate	[19]
<i>Saccharopolyspora erythraea</i> ERMD1	4-Fluorobutyrate	16-Fluoroerythromycin A	[20]
<i>Pseudomonas</i> sp.	<i>p</i> -Fluorophenylacetate	2-Fluorosuccinate	[21]

## References

1. Takagi Y, Yasuda R, Maehara A, Yamane T: **Microbial synthesis and characterization of polyhydroxyalkanoates with fluorinated phenoxy side groups from *Pseudomonas putida***. *Eur. Polymer J.* 2004, **40**:1551-1557.
2. Cerniglia CE, Miller DW, Yang SK, Freeman JP: **Effects of a fluoro substituent on the fungal metabolism of 1-fluoronaphthalene**. *Appl. Environ. Microbiol.* 1984, **48**:294-300.
3. Murphy CD, Quirke S, Balogun O: **Degradation of fluorobiphenyl by *Pseudomonas pseudoalcaligenes* KF707**. *FEMS Microbiol. Lett.* 2008, **286**:45-49.
4. Bondar VS, Boersma MG, Golovlev EL, Vervoort J, van Berkel WJH, Finkelstein ZI, Solyanikova IP, Golovleva LA, Rietjens IMCM: **<sup>19</sup>F NMR study on the biodegradation of fluorophenols by various *Rhodococcus* species**. *Biodegradation* 1998, **9**:475-486.
5. Husain M, Entsch B, Ballou DP, Massey V, Chapman PJ: **Fluoride elimination from substrates in hydroxylation reactions catalyzed by *p*-hydroxybenzoate hydroxylase**. *J. Biol. Chem.* 1980, **255**:4189-4197.
6. Cain RB, Tranter EK, Darrah JA: **The utilization of some halogenated aromatic acids by *Nocardia*. Oxidation and metabolism**. *Biochem. J.* 1968, **106**:211-227.
7. Michalover JL, Ribbons DW, Hughes H: **3-Hydroxybenzoate 4-hydroxylase from *Pseudomonas testosteroni***. *Biochem. Biophys. Res. Commun.* 1973, **55**:888-896.
8. Finkelstein ZI, Baskunov BP, Boersma MG, Vervoort J, Golovlev EL, van Berkel WJH, Golovleva LA, Rietjens IMCM: **Identification of fluoropyrogallols as new intermediates in biotransformation of monofluorophenols in *Rhodococcus opacus* 1cp**. *Appl. Environ. Microbiol.* 2000, **66**:2148-2153.
9. Prenafeta-Boldú FX, Luykx DM, Vervoort J, de Bont JAM: **Fungal metabolism of toluene: monitoring of fluorinated analogs by <sup>19</sup>F nuclear magnetic resonance spectroscopy**. *Appl. Environ. Microbiol.* 2001, **67**:1030-1034.
10. Wirth NT, Nikel PI: **Combinatorial pathway balancing provides biosynthetic access to 2-fluoro-*cis,cis*-muconate in engineered *Pseudomonas putida***. *Chem Catal.* 2021, In press: 10.1016/j.cheecat.2021.09.002.

11. Hensens OD, White RF, Goegelman RT, Inamine ES, Patchett AA: **The preparation of [2-deutero-3-fluoro-D-Ala<sup>δ</sup>]cyclosporin A by directed biosynthesis.** *J. Antibiot.* 1992, **45**:133-135.
12. Martin RE, Baker PB, Ribbons DW: **Biotransformations of fluoroaromatic compounds: accumulation of hydroxylated products from 3-fluorophthalic acid using mutant strains of *Pseudomonas testosteroni*.** *Biocatalysis* 1987, **1**:37-46.
13. Engesser KH, Cain RB, Knackmuss HJ: **Bacterial metabolism of side chain fluorinated aromatics: cometabolism of 3-trifluoromethyl (TFM)-benzoate by *Pseudomonas putida (arvilla)* mt-2 and *Rhodococcus rubropertinctus* n657.** *Arch. Microbiol.* 1988, **149**:188-197.
14. Hughes D, Clark BR, Murphy CD: **Biodegradation of polyfluorinated biphenyl in bacteria.** *Biodegradation* 2011, **22**:741-749.
15. Song E, Wang M, Shen D: **Isolation, identification and characterization of a novel *Ralstonia* sp. FD-1, capable of degrading 4-fluoroaniline.** *Biodegradation* 2014, **25**:85-94.
16. Maeda T, Okamura D, Yokoo M, Yamashita E, Ogawa HI: **Fluorine elimination from 4-fluorobenzyl alcohol by *Pseudomonas* spp.** *J. Environ. Biotechnol.* 2007, **7**:45-53.
17. Eble KS, Dawson JH: **Novel reactivity of cytochrome P-450-CAM—Methyl hydroxylation of 5,5-difluorocamphor.** *J. Biol. Chem.* 1984, **259**:4389-4393.
18. Behrman EJ, Stanier RY: **Observations on the oxidation of halogenated nicotinic acids.** *J. Biol. Chem.* 1957, **228**:947-953.
19. Parisot D, Malet-Martino MC, Martino R, Crasnier P: **F Nuclear magnetic resonance analysis of 5-fluorouracil metabolism in four differently pigmented strains of *Nectria haematococca*.** *Appl. Environ. Microbiol.* 1991, **57**:3605-3612.
20. Goss RJM, Hong H: **A novel fluorinated erythromycin antibiotic.** *Chem. Commun.* 2005, **36**:3983-3985.
21. Harper DB, Blakley ER: **The metabolism of *p*-fluorophenylacetic acid by a *Pseudomonas* sp. I. Isolation and identification of intermediates in degradation.** *Can. J. Microbiol.* 1971, **17**:635-644.