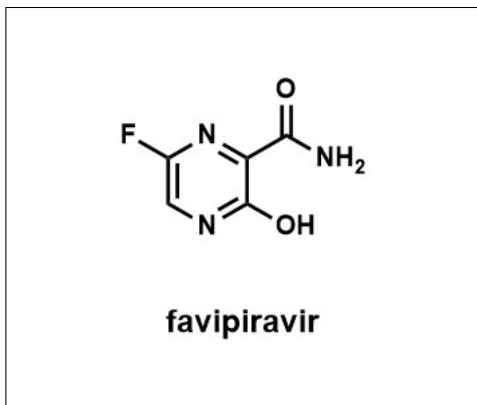


Favipiravir



Related reviews in Science of Synthesis

- Pyrazines
- Amides
- Bromination of Pyrazinamines Using NBS
- Fluorination with Hydrogen Fluoride/Pyridine Mixtures

Synonyms: T-705

ATC: -

Use: antiviral; RNA Polymerase (NS5B) inhibitor; anti-Influenza

Chemical name: 5-Fluoro-2-oxo-1*H*-pyrazine-3-carboxamide

Formula: C₅H₄FN₃O₂

MW: 157.1 g/mol

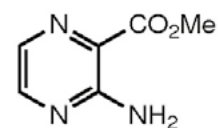
CAS-RN: 259793-96-9

InChI Key: ZCGNOVWYSGBHAU-UHFFFAOYSA-N

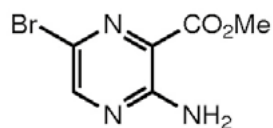
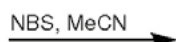
InChI: InChI=1S/C5H4FN3O2/c6-2-1-8-5(11)3(9-2)4(7)10/h1H,(H2,7,10)(H,8,11)

Synthesis Path

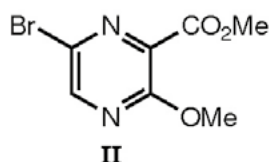
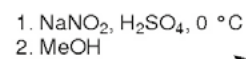
a



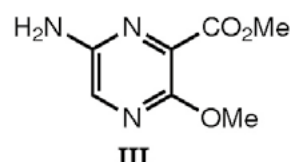
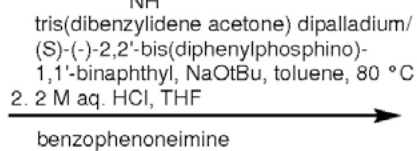
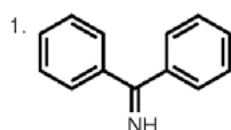
methyl 3-amino-2-pyrazine carboxylate



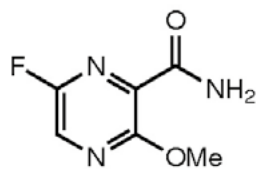
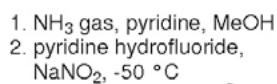
methyl 6-bromo-3-amino-2-pyrazine carboxylate (I)



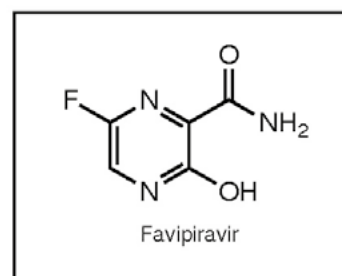
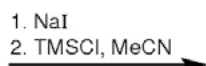
methyl 6-bromo-3-methoxy-2-pyrazine carboxylate (II)



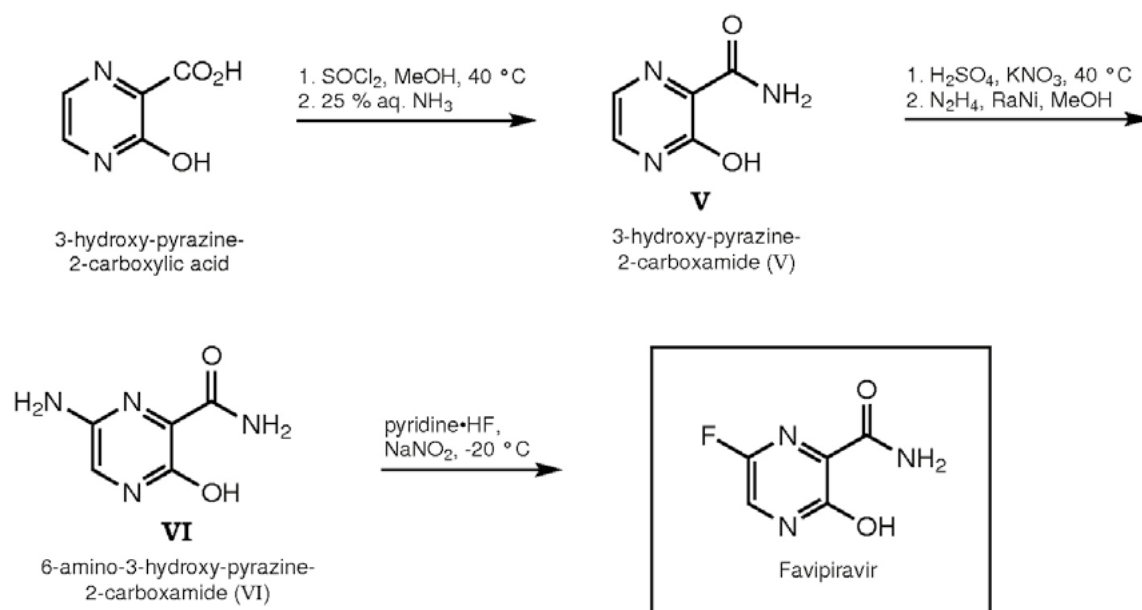
methyl 6-amino-3-methoxy-2-pyrazine carboxylate (III)



6-fluoro-3-methoxy-2-pyrazine carboxamide (IV)



b



Substances Referenced in Synthesis Path

CAS-RN	Formula	Chemical Name
16298-03-6	C ₆ H ₇ N ₃ O ₂	methyl 3-amino-2-pyrazine carboxylate
6966-01-4	C ₆ H ₆ N ₃ O ₂	methyl 6-bromo-3-amino-2-pyrazine carboxylate
259794-06-4	C ₇ H ₇ BrN ₂ O ₃	methyl 6-bromo-3-methoxy-2-pyrazine carboxylate
259794-07-5	C ₇ H ₉ N ₃ O ₃	methyl 6-amino-3-methoxy-2-pyrazine carboxylate
259794-09-7	C ₆ H ₆ FN ₃ O ₂	6-fluoro-3-methoxy-2-pyrazine carboxamide
20737-42-2	C ₅ H ₄ N ₂ O ₃	3-hydroxy-pyrazine-2-carboxylic acid
55321-99-8	C ₅ H ₅ N ₃ O ₂	3-hydroxy-pyrazine-2-carboxamide
1413942-41-2	C ₅ H ₆ N ₄ O ₂	6-amino-3-hydroxy-pyrazine-2-carboxamide

Trade Names

Country	Trade Name	Vendor
J	AVIGAN	Toyama Chemical, 2014

Formulations

tabs.; 200 mg

References

Furuta, Y. et al., *Antiviral Research*, (2009) **82**, 95-102.

b Shi, F. et al., *Drug Discoveries Therapeutics*, (2014) **8**(3), 117-120.

a EP 1 112 743 (Toyama Chemical; 4.7.2001; appl. 18.8.1999; JP-Prior. 20.8.1998).