

## Catalog # 10-4471 Favipiravir

CAS# 259793-96-9 6-Fluoro-3-hydroxypyrazine-2-carboxamide; T-705 Lot # FBS2079

Favipiravir is an inhibitor of Influenza viruses A, B, and C (IC $_{50}$ 's: A = 0.03-0.20 µg/mL H1N1, 0.01-0.30 H2N2, 0.08-0.48 H3N2, 0.14-0.15 H4N2, 0.24-1.60 H7N2, 0.20-0.82 H5N1, 0.35 H1N2; B = 0.04-0.09 µg/mL; C = 0.03-0.06 µg/mL) as well as strains resistant to adamantane-type antivirals, oseltamivir, and zanamivir.<sup>1,2,3</sup> It displayed no cytotoxicity in a variety of cells. Favipiravir selectively inhibits viral RNA-dependent RNA polymerase.<sup>4</sup> Favipiravir has also shown activity against other viruses including arena, phlebo, hanta, flavi, entero, alpha, respiratory syncytial, and noroviruses.<sup>5</sup> In clinical trials for treatment of SARS-CoV-2.<sup>6,7</sup>

- 1) Furuta et al. (2002), In Vitro and In Vivo Activities of Anti-Influenza Virus Compound T-705; Antimicrob. Agents Chemother., 46 977
- 2) Takahashi *et al.* (2003), *In Vitro and In Vivo Activities of T-705 and Oseltamivir Against Influenza Virus*; Antivir. Chem. Chemother., **14** 235
- 3) Sleeman et al. (2010), In Vitro Antiviral Activity of Favipiravir (T-705) against Drug-Resistant Influenza and 2009 A(H1N1) Viruses; Antimicrob. Agents Chemother., **54** 2517
- 4) Furuta et al. (2005), Mechanism of action of T-705 against influenza virus; Antimicrob. Agents Chemother., 49 981
- 5) Furuta et al. (2013), Favipiravir (T-705), a Novel Viral RNA Polymerase Inhibitor, Antiviral Res., 100 446
- 6) Dong et al. (2020), Discovering Drugs to Treat Coronavirus Disease 2019 (COVID-19); Drug Discov.Ther., 14 58
- 7) Tu et al. (2020), A Review of SARS-CoV-2 and the Ongoing Clinical Trials; Int. J. Mol. Sci., 21 E2657

## **PHYSICAL DATA**

Molecular Weight: 157.10 Molecular Formula:  $C_5H_4FN_3O_2$  Purity: >99% by HPLC NMR: (Conforms)

Solubility: DMSO (30 mg/ml); water (12 mg/mL with warming)

Physical Description: Off-white solid

Storage and Stability: Store as supplied, desiccated at -20°C for up to 1 year from the date of purchase. Solutions in

DMSO or water may be stored at -20°C for up to 3 months.

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