Revision 1

Store at -20C

#57214

T-705 (Favipiravir)

10 mg

Cell Signaling TECHNOLOGY®

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Background

T-705 (Favipiravir) is a potent antiviral agent that has shown effectiveness against influenzas A, B, and C with IC_{50} values as follows: A (H1N1) = 0.03-0.20 µg/ml, A (H2N2) = 0.01-0.30 µg/ml, A (H3N2) = 0.08-0.48 µg/ml, A (H4N2) = 0.14-0.15 µg/ml, A (H7N2) = 0.24-1.60 µg/ml, B = 0.04-0.09 µg/ml, and C = 0.03-0.06 µg/ml (1,2). T-705 (Favipiravir) becomes activated by phosphoribosylation to form T-705 (Favipiravir)-RTP that is recognized by RNA polymerase, inhibiting RNA-dependent RNA polymerase (RdRP). This activity makes T-705 (Favipiravir) an effective inhibitor of other RNA viruses, such as arena-, phlebo-, hanta-, flavi-, entero-, and alphavirus. The antiviral capability of T-705 (Favipiravir) makes it a compound of interest when studying SARS-CoV-2 infection (3).

Molecular Formula

$C_5H_4FN_3O_2$

Molecular Weight

157.1 g/mol

Purity

>99%

CAS

259793-96-9

Solubility

Soluble in DMSO at 30 mg/ml or water at 12 mg/ml with slight warming.

Storage

Store lyophilized at -20ºC, desiccated. In lyophilized form, the chemical is stable for 24 months. Once in solution, store at -20ºC and use within 3 months to prevent loss of potency. *Aliquot to avoid multiple freeze/thaw cycles.*

Directions for Use

T-705 (Favipiravir) is supplied as a lyophilized powder. For a 10 mM stock, reconstitute 2 mg of powder in 1.27 ml of DMSO. Working concentrations and length of treatment can vary depending on the desired effect.

Background References

1. Furuta, Y. et al. (2013) *Antiviral Res* 100, 446-54.
2. Furuta, Y. et al. (2002) *Antimicrob Agents Chemother* 46, 977-81.
3. Dong, L. et al. (2020) *Drug Discov Ther* 14, 58-60.

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Limited Uses

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