# Nifuroxazide-$^{13}C_6$

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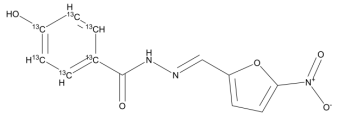
| **Cat. No.:** | HY-B1436S1 |
| **Molecular Formula:** | $C_6{}^{13}C_6H_9N_3O_5$ |
| **Molecular Weight:** | 281.17 |
| **Target:** | Bacterial; STAT; Antibiotic; Isotope-Labeled Compounds |
| **Pathway:** | Anti-infection; JAK/STAT Signaling; Stem Cell/Wnt; Others |
| **Storage:** | Please store the product under the recommended conditions in the Certificate of Analysis. |



## BIOLOGICAL ACTIVITY

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| **Description** | Nifuroxazide-$^{13}C_6$ is the $^{13}C_6$ labeled Nifuroxazide. Nifuroxazide is an effective inhibitor of STAT3, also exerts potent anti-tumor and anti-metastasis activity. |
| **In Vitro** | Stable heavy isotopes of hydrogen, carbon, and other elements have been incorporated into drug molecules, largely as tracers for quantitation during the drug development process. Deuteration has gained attention because of its potential to affect the pharmacokinetic and metabolic profiles of drugs[1].<br>MCE has not independently confirmed the accuracy of these methods. They are for reference only. |

## REFERENCES

[1]. Nelson EA, et al. Nifuroxazide inhibits survival of multiple myeloma cells by directly inhibiting STAT3. Blood. 2008 Dec 15;112(13):5095-102.

[2]. Zhu Y, et al. Nifuroxazide exerts potent anti-tumor and anti-metastasis activity in melanoma. Sci Rep. 2016 Feb 2;6:20253.

[3]. Russak EM, et al. Impact of Deuterium Substitution on the Pharmacokinetics of Pharmaceuticals. Ann Pharmacother. 2019 Feb;53(2):211-216.



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