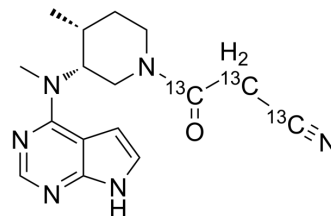


## Tofacitinib-<sup>13</sup>C<sub>3</sub>

<b>Cat. No.:</b>	HY-40354S
<b>Molecular Formula:</b>	C <sub>13</sub> <sup>13</sup> C <sub>3</sub> H <sub>20</sub> N <sub>6</sub> O
<b>Molecular Weight:</b>	315.35
<b>Target:</b>	JAK; Apoptosis
<b>Pathway:</b>	Epigenetics; JAK/STAT Signaling; Protein Tyrosine Kinase/RTK; Stem Cell/Wnt; Apoptosis
<b>Storage:</b>	Please store the product under the recommended conditions in the Certificate of Analysis.



### BIOLOGICAL ACTIVITY

<b>Description</b>	Tofacitinib- <sup>13</sup> C <sub>3</sub> is the <sup>13</sup> C-labeled Tofacitinib. Tofacitinib is an orally available JAK3/2/1 inhibitor with IC50s of 1, 20, and 112 nM, respectively.
<b>In Vitro</b>	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 <sup>[1]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

### REFERENCES

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- [2]. Jiang JK, et al. Examining the chirality, conformation and selective kinase inhibition of 3-((3R,4R)-4-methyl-3-(methyl(7H-pyrrolo[2,3-d]pyrimidin-4-yl)amino)piperidin-1-yl)-3-oxopropanenitrile (CP-690,550). *J Med Chem.* 2008 Dec 25;51(24):8012-8.
- [3]. Onda M, et al. Tofacitinib suppresses antibody responses to protein therapeutics in murine hosts. *J Immunol.* 2014 Jul 1;193(1):48-55.
- [4]. LaBranche TP, et al. JAK inhibition with tofacitinib suppresses arthritic joint structural damage through decreased RANKL production. *Arthritis Rheum.* 2012 Nov;64(11):3531-42.
- [5]. Calama E, et al. Tofacitinib ameliorates inflammation in a rat model of airway neutrophilia induced by inhaled LPS. *Pulm Pharmacol Ther.* 2017 Apr;43:60-67.

**Caution: Product has not been fully validated for medical applications. For research use only.**

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