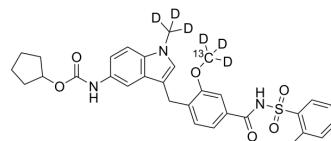


## Zafirlukast-<sup>13</sup>C,<sub>6</sub>D<sub>6</sub>

|                           |   |
|---------------------------|---|
| <b>Cat. No.:</b>          | HY-17492S2  |
| <b>Molecular Formula:</b> | C <sub>30</sub> <sup>13</sup> CH <sub>27</sub> D <sub>6</sub> N <sub>3</sub> O <sub>6</sub> S |
| <b>Molecular Weight:</b>  | 582.7   |
| <b>Target:</b>            | Leukotriene Receptor; Isotope-Labeled Compounds   |
| <b>Pathway:</b>           | GPCR/G Protein; Others  |
| <b>Storage:</b>           | Please store the product under the recommended conditions in the Certificate of Analysis.     |



### BIOLOGICAL ACTIVITY

|                    |   |
|--------------------|---|
| <b>Description</b> | Zafirlukast- <sup>13</sup> C, <sub>6</sub> D <sub>6</sub> is the <sup>13</sup> C- and deuterium labeled Zafirlukast. Zafirlukast (ICI 204219) is a potent orally active leukotriene D <sub>4</sub> (LTD <sub>4</sub> ) receptor antagonist. Zafirlukast shows anti-asthmatic, anti-inflammatory and anti-bacterial effects.   |
| <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>[45]</sup> .<br>MCE has not independently confirmed the accuracy of these methods. They are for reference only. |

### REFERENCES

- [1]. Russak EM, et al. Impact of Deuterium Substitution on the Pharmacokinetics of Pharmaceuticals. *Ann Pharmacother.* 2019;53(2):211-223.
- [2]. Finnerty JP, et al. Role of leukotrienes in exercise-induced asthma. Inhibitory effect of ICI 204219, a potent leukotriene D<sub>4</sub> receptor antagonist. *Am Rev Respir Dis.* 1992 Apr;145(4 Pt 1):746-9.
- [3]. Gunning WT, et al. Chemoprevention by lipoxygenase and leukotriene pathway inhibitors of vinyl carbamate-induced lung tumors in mice. *Cancer Res.* 2002 Aug 1;62(15):4199-201.
- [4]. Lei C, et al. Zafirlukast attenuates advanced glycation end-products (AGEs)-induced degradation of articular extracellular matrix (ECM). *Int Immunopharmacol.* 2019;68:68-73.

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

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