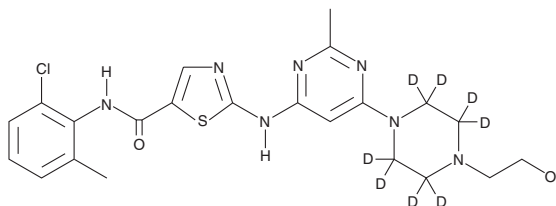


# PRODUCT INFORMATION



## Dasatinib-d<sub>8</sub> Item No. 22368

**CAS Registry No.:** 1132093-70-9  
**Formal Name:** N-(2-chloro-6-methylphenyl)-2-[[6-[4-(2-hydroxyethyl)-1-piperazinyl-2,2',3,3',5,5',6,6'-d<sub>8</sub>]-2-methyl-4-pyrimidinyl]amino]-5-thiazolecarboxamide  
**Synonym:** Sprycel-d<sub>8</sub>  
**MF:** C<sub>22</sub>H<sub>18</sub>ClD<sub>8</sub>N<sub>7</sub>O<sub>2</sub>S  
**FW:** 496.1  
**Chemical Purity:** ≥98% (Dasatinib)  
**Deuterium Incorporation:** ≥99% deuterated forms (d<sub>1</sub>-d<sub>8</sub>); ≤1% d<sub>0</sub>  
**Supplied as:** A solid  
**Storage:** -20°C  
**Stability:** ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

### Laboratory Procedures

Dasatinib-d<sub>8</sub> is intended for use as an internal standard for the quantification of dasatinib (Item No. 11498) by GC- or LC-MS. The accuracy of the sample weight in this vial is between 5% over and 2% under the amount shown on the vial. If better precision is required, the deuterated standard should be quantitated against a more precisely weighed unlabeled standard by constructing a standard curve of peak intensity ratios (deuterated versus unlabeled).

Dasatinib-d<sub>8</sub> is supplied as a solid. A stock solution may be made by dissolving the dasatinib-d<sub>8</sub> in the solvent of choice, which should be purged with an inert gas. Dasatinib-d<sub>8</sub> is soluble in organic solvents such as methanol and DMSO.

### Description

Dasatinib is a potent inhibitor of the non-receptor tyrosine kinases Abl and Src as well as other members of the Src family.<sup>1,2</sup> It is effective at sub-nanomolar concentrations, inhibiting Src, Abl, and Lck with IC<sub>50</sub> values of 0.05, 0.5, and 0.4 nM, respectively.<sup>1,3,4</sup> At nanomolar concentrations, dasatinib also blocks the activity of several other receptor and non-receptor tyrosine kinases, plus drug-resistant mutants.<sup>3,4</sup> Because of these activities, dasatinib has potential therapeutic value in diseases characterized by elevated levels of these kinases, including some forms of cancer and fibrotic disease.<sup>1,5-7</sup>

### References

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2. Das, J., Chen, P., Norris, D., *et al.* *J. Med. Chem.* **49**(23), 6819-6823 (2006).
3. Davis, M.I., Hunt, J.P., Herrgard, S., *et al.* Comprehensive analysis of kinase inhibitor selectivity. *Nat. Biotechnol.* **29**(11), 1046-1051 (2011).
4. Carter, T.A., Wodicka, L.M., Shah, N.P., *et al.* *Proc. Natl. Acad. Sci. USA* **102**(31), 11011-11016 (2005).
5. El-Amm, J., Freeman, A., Patel, N., *et al.* *Prostate Cancer* **2013**, 1-10 (2013).
6. Distler, J.H.W. and Distler, O. *Rheumatology* **47**, 10-11 (2008).
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#### WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

#### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

#### WARRANTY AND LIMITATION OF REMEDY

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

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