

STING

STING (Stimulator of Interferon Genes) is an endoplasmic reticulum-associated transmembrane protein that is essential for activation of the innate immune system in response to the sensing of cytosolic DNA.^{1,2,3} It controls the transcription of numerous defenses including type I interferons and pro-inflammatory cytokines. In addition to detecting pathogenic DNA, it may react to self-DNA resulting in autoinflammatory diseases and inflammation-associated cancers.^{4,5} Conversely, STING agonists are potential cancer immunotherapy enhancers.⁶

DMXAA

STING (Stimulator of Interferon Genes) agonist selective for mouse STING.^{7,8}

Product No: 10-2676 **5 mg** **25 mg**

2',3'-cGAMP

Endogenous STING (Stimulator of Interferon Genes) agonist.⁹ Produced from ATP and GTP via the action of cGMP-AMP synthase (cGAS).

Product No: 10-1639 **200 µg** **1 mg**

H-151

H-151 is an inhibitor of the signaling molecule STING in mouse and human cells.¹⁰ It covalently binds to Cys91 of STING preventing activation *via* blockade of palmitoylation at Cys91

Product No: 10-4132 **10 mg** **50 mg**

C-176

C-176 is an inhibitor of STING in mouse cells.¹⁰ Treatment of Trex^{-/-} mice with C-176 resulted in a significant reduction in serum levels of Type I Interferons and amelioration of systemic inflammation.

Product No: 10-4130 **10 mg** **50 mg**

C-178

C-178 is an inhibitor of the signaling molecule STING in mouse cells.¹⁰

Product No: 10-4131 **10 mg** **50 mg**

α-Mangostin

α-Mangostin is a natural product STING agonist.¹¹

Product No: 10-3433 **10 mg** **50 mg**

RU.521

RU.521 is an inhibitor of cGAS, an innate immune sensor of foreign DNA.¹²

Product No: 10-4140 **5 mg** **25 mg**

SR-717

SR-717 is a cell permeable and very selective STING agonist.¹³

Product No: 10-4850 **10 mg** **50 mg**

NVS-STG2

STING agonist that activates human STING by binding in a pocket between the transmembrane domains of neighboring STING dimers in a molecular glue-like manner.¹⁴

Product No: 10-4134 **5 mg** **25 mg**

LB244

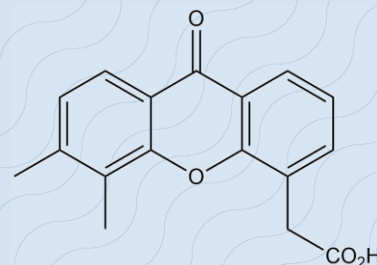
Potent and irreversible STING antagonist with markedly enhanced proteome-wide selectivity compared.¹⁵

Product No: 10-4133 **5 mg** **25 mg**

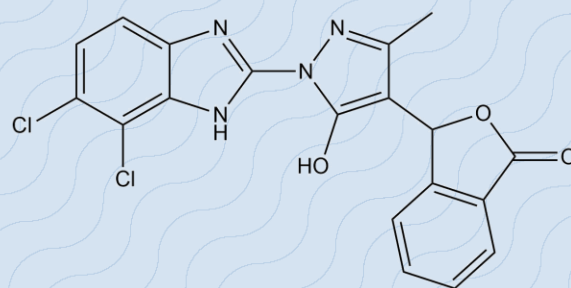
STING Degradator 2

Molecular glue that covalently binds both STING and RNF126 E3 ligase leading to proteasomal degradation.¹⁶

Product No: 10-3939 **5 mg** **25 mg**



DMXAA



RU.521

REFERENCES

1. Ishikawa *et al.* (2008) *Nature* **455** 674
2. Ishikawa *et al.* (2009) *Nature* **461** 788
3. Burdette *et al.* (2011) *Nature* **478** 515
4. Ahn and Barber (2014) *Curr. Opin. Immunol.* **31** 121
5. Ablasser *et al.* (2014) *J. Immunol.* **192** 5993
6. Woo *et al.* (2015) *Trends Immunol.* **36** 250
7. Prantner *et al.* (2012), *J. Biol. Chem.* **287** 39776
8. Conlon *et al.* (2013), *J. Immunol.* **190** 5216
9. Zhang *et al.* (2015), *Mol. Cell.* **51** 226
10. Wu *et al.* (2013), *Science* **339** 826
11. Zhang *et al.* (2018), *Chem. Med. Chem.* **13** 2057
12. Vincent *et al.* (2017), *Nat. Commun.* **8** 750
13. Chin *et al.* (2020), *Science* **369** 993
14. Li *et al.* (2024), *Nat. Chem. Biol.* **20** 365
15. Barasa *et al.* (2023), *J. Am. Soc. Chem.* **145** 20273
16. Nakamura *et al.* (2024), *Bioorg. Med. Chem. Lett.* **102** 129677