



# MCC-950

# Data Sheet

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<b>Catalog Number:</b>	MC11040	<b>Product Type:</b>	Small Molecule
<b>Bio-Activity:</b>	NLRP3 inflammasome inhibitor	<b>CAS #:</b>	256373-96-3
<b>Research Categories:</b>	Immunology, neuroscience, inflammation, ageing, neurodegeneration, atherosclerosis	<b>Chemical Name:</b>	N-[[(1,2,3,5,6,7-Hexahydro-s-indacen-4-yl)amino]carbonyl]-4-(1-hydroxy-1-methylethyl)-2-furansulfonamide sodium salt
<b>Solubility:</b>	Soluble in DMSO (up to 40 mg/ml) or in Water (up to 30 mg/ml).	<b>Molecular Formula:</b>	C <sub>20</sub> H <sub>23</sub> N <sub>2</sub> O <sub>5</sub> S • Na
<b>Purity:</b>	> 98%	<b>Molecular Weight:</b>	426.46
<b>Format:</b>	Powder	<b>Ship Temp:</b>	Ambient
<b>Storage:</b>	-20°C		

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## Application Notes

### Description/Data:

MCC-950 was originally found to act as a cytokine release inhibitory drug (CRID), arresting activated monocytes and preventing activation of caspase-1 [1]. Discovered to be a novel inhibitor of the NLRP3 and AIM2 inflammasomes [2]. Blocks canonical and noncanonical NLRP3 activation at nanomolar concentrations [3]. Inhibits interleukin 1 $\beta$  (IL-1 $\beta$ ) secretion in vivo and attenuates the severity of experimental autoimmune encephalomyelitis (an MS disease model) [3]. Disrupts the interaction between AIM2 and ASC in a reconstituted cell-free inflammasome [4]. A valuable new tool for exploring the pathophysiology of NLRP3.

### References:

- 1) RE Laliberte et al. J. Biol. Chem. 2003 278:16567
- 2) RC Coll et al. PLoS One 2011 6(12):e29539
- 3) RC Coll et al. Nat. Med. 2015 21:248
- 4) N Kaneko et al. J. Immunol. Methods 2015 426:76"6) Z Li et al. Proc. Natl. Acad. Sci. USA 2013 110:5004

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