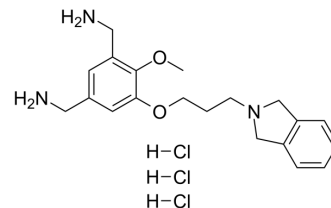


## MS31 trihydrochloride

Cat. No.:	HY-125837A
Molecular Formula:	C <sub>20</sub> H <sub>30</sub> Cl <sub>3</sub> N <sub>3</sub> O <sub>2</sub>
Molecular Weight:	450.83
Target:	Epigenetic Reader Domain
Pathway:	Epigenetics
Storage:	4°C, sealed storage, away from moisture * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)



### SOLVENT & SOLUBILITY

#### In Vitro

DMSO : 62.5 mg/mL (138.63 mM; Need ultrasonic)

Concentration	Solvent	Mass		
		1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM	2.2181 mL	11.0907 mL	22.1813 mL
	5 mM	0.4436 mL	2.2181 mL	4.4363 mL
	10 mM	0.2218 mL	1.1091 mL	2.2181 mL

Please refer to the solubility information to select the appropriate solvent.

### BIOLOGICAL ACTIVITY

#### Description

MS31 trihydrochloride is a potent, highly affinity and selective fragment-like methyllysine reader protein spindlin 1 (SPIN1) inhibitor. MS31 trihydrochloride potently inhibits the interactions between SPIN1 and H3K4me3 (IC<sub>50</sub>=77 nM, AlphaLISA; 243 nM, FP). MS31 trihydrochloride selectively binds Tudor domain II of SPIN1 (K<sub>d</sub>=91 nM). MS31 trihydrochloride potently inhibits binding of trimethyllysine-containing peptides to SPIN1, and is not toxic to nontumorigenic cells<sup>[1]</sup>.

#### IC<sub>50</sub> & Target

IC<sub>50</sub>: 77 nM (SPIN1 by AlphaLISA), 243 nM (SPIN1 by FP)<sup>[1]</sup>  
K<sub>d</sub>: 91 nM (SPIN1)<sup>[1]</sup>

#### In Vitro

MS31 trihydrochloride potently inhibits binding of trimethyllysine-containing peptides to SPIN1, displays high binding affinity, is highly selective for SPIN1 over other epigenetic readers and writers, directly engages SPIN1 in cells, and is not toxic to nontumorigenic cells. MS31 trihydrochloride selectively binds tudor domain II of SPIN1<sup>[1]</sup>.  
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

### REFERENCES

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

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