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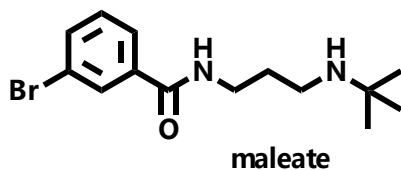
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Methyl-lysine Binding Protein 53BP1 Inhibitor – UNC2170

Chemical Name: 3-bromo-N-(3-(tert-butylamino)propyl)benzamide maleate



Molecular Weight:	429.30
Formula:	C ₁₄ H ₂₁ BrN ₂ O.C ₄ H ₄ O ₄
Purity:	≥98%
CAS#:	n/a
Solubility:	DMSO up to 100 mM
Storage	Powder: 4 °C 1 year DMSO: 4 °C 3 months -20 °C 1 year

Biological Activity:

UNC2170 is a selective and cell permeable methyl-lysine binding protein 53BP1 antagonist with micromolar activity. It displays >17-fold selectivity for 53BP1 as compared to other methyl-lysine (Kme) binding proteins tested. Structural studies revealed that the tert-butyl amine of UNC2170 anchors the compound in the methyl-lysine (Kme) binding pocket of 53BP1, making it competitive with endogenous Kme substrates. X-ray crystallography also demonstrated that UNC2170 binds at the interface of two tudor domains of a 53BP1 dimer. It functions as a 53BP1 antagonist in cellular lysates and shows cellular activity by suppressing class switch recombination, a process which requires a functional 53BP1 tudor domain.

How to Use:

In vitro: UNC2170 was used at 10-30 μM final concentration in various in vitro assays.

In vivo: n/a

Reference:

1. Perfetti MT, et al. Identification of a fragment-like small molecule ligand for the methyl-lysine binding protein, 53BP1. (2015) ACS Chem Biol. 10(4):1072-81.

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