

## DBIC, DNMT3B S-nitrosylation inhibitor

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Catalog	Unit
TBI5161-5MG	5 mg
TBI5161-25MG	25 mg

### Product Details

**Formal Name:** (E)-N'-(3,4-Dihydroxybenzylidene)-1H-benzo[d]imidazole-5-carbohydrazide

**Molecular Formula:** C<sub>15</sub>H<sub>12</sub>N<sub>4</sub>O<sub>3</sub>

**Formula Weight:** 296.30

**CAS Number:** 487026-67-5

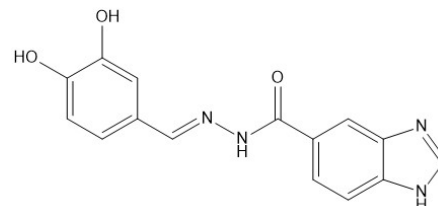
**Purity:** >98%

**Formulation:** powder

**Solubility:** Soluble in DMSO (30 mg/ml)

**Storage:** -20°C

**Stability:** ≥ 2 years.



### Applications

DNMT3B S-nitrosylation inhibitor

### Functions

Specifically inhibits S-nitrosylation of DNA methyltransferase 3B (DNMT3B) at low concentrations, IC<sub>50</sub> ≤ 100 nM, without affecting its enzymatic activity. Treatment with DBIC prevents nitric oxide-induced conversion of human colonic adenoma to adenocarcinoma in vitro. Treatment with DBIC strongly attenuates tumor development in a mouse model of carcinogenesis triggered by inflammation-induced NO production. DNMT3B-mediated DNA methylation is regulated by S-nitrosylation and DBIC represents a new useful tool for studying this system. A negative control compound, DBIC-neg2 (Cat # MC-5162) is also available.

### Application Procedures

First dissolved in DMSO (30 mg/ml), then diluted to aqueous buffer. Solutions in DMSO may be stored at -20°C for up to 1 month.

**For research use only.**