

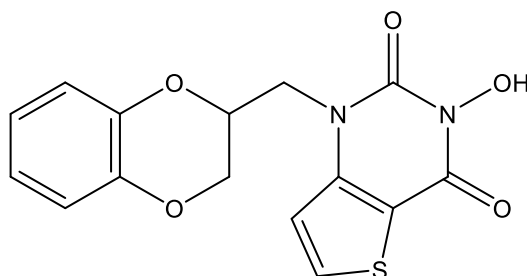
**Catalog # 10-4036**

**LNT 1**

CAS# 824983-91-7

1-(2,3-Dihydro-1,4-benzodioxin-3-ylmethyl)-3-hydroxythieno[3,2-d]pyrimidine-2,4-dione; FEN1-IN-1

Lot # FBA7181



LNT 1 (824983-91-7) is a potent ( $IC_{50} = 11$  nM) inhibitor of flap endonuclease 1 (FEN1).<sup>1</sup> It showed similar potency in inhibiting exonuclease 1 (EXO1).<sup>2</sup> Induces a DNA damage response and ultimately cell death. FEN1 inhibitors have therapeutic potential for the treatment of cancers that are defective for homologous repair and other DNA repair and DNA damage checkpoint pathways.<sup>4</sup>

- 1) Tumey *et al.* (2005), *The identification and optimization of a N-hydroxy urea series of flap endonuclease 1 inhibitors*; Bioorg. Med. Chem. Lett., **15** 277
- 2) Exell *et al.* (2016), *Cellular Active N-Hydroxyurea FEN1 Inhibitors Block Substrate Entry to the Active Site*; Nat. Chem. Biol., **12** 815
- 3) Ward *et al.* (2017), *Small molecules inhibitors uncover synthetic genetic interactions of human flap endonuclease 1 (FEN1) with DNA damage response genes*; PLoS One, **12** e0179278
- 4) Guo *et al.* (2020), *FEN1 endonuclease as a therapeutic target for human cancers with defects in homologous recombination*; Proc. Natl. Acad. Sci USA **117** 19415

**PHYSICAL DATA**

Molecular Weight:	332.33
Molecular Formula:	C <sub>15</sub> H <sub>12</sub> N <sub>2</sub> O <sub>5</sub> S
Purity:	>97% by HPLC NMR: (Conforms)
Solubility:	DMSO (15 mg/ml)
Physical Description:	Tan solid
Storage and Stability:	Store as supplied at -20°C for up to 2 years from the date of purchase. Solutions in DMSO may be stored at -20°C for up to 3 months.

**Materials provided by Focus Biomolecules are for laboratory research use only and are not intended for human or veterinary applications.**