

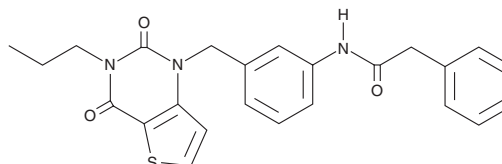
# PRODUCT INFORMATION



## SC-13

Item No. 39717

**CAS Registry No.:** 2098776-03-3  
**Formal Name:** N-[3-[(3,4-dihydro-2,4-dioxo-3-propylthieno[3,2-d]pyrimidin-1(2H)-yl)methyl]phenyl]-benzeneacetamide  
**Synonyms:** FEN1 inhibitor SC-13  
FEN1-IN-SC-13,  
Flap Endonuclease 1 Inhibitor SC-13,  
Flap Endonuclease 1-IN-SC-13



**MF:** C<sub>24</sub>H<sub>23</sub>N<sub>3</sub>O<sub>3</sub>S

**FW:** 433.5

**Purity:** ≥98%

**Supplied as:** A solid

**Storage:** -20°C

**Stability:** ≥4 years

Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

### Laboratory Procedures

SC-13 is supplied as a solid. A stock solution may be made by dissolving the SC-13 in the solvent of choice, which should be purged with an inert gas. SC-13 is soluble in acetonitrile and DMSO.

### Description

SC-13 is an inhibitor of flap endonuclease 1 (FEN1; IC<sub>50</sub> = 4.2 nM) and an activator of stimulator of interferon genes (STING).<sup>1,2</sup> It increases the levels of  $\gamma$  histone H2AX ( $\gamma$ H2AX) in MCF-7 and MDA-MB-231 breast cancer cells when used at a concentration of 40  $\mu$ M.<sup>1</sup> SC13 (20 or 50  $\mu$ M) induces chromosomal aberrations in MCF-7 cells. It potentiates the proliferation inhibition induced by cisplatin (Item No. 13119), 5-fluorouracil (Item No. 14416), or temozolomide (Item No. 14163) in MCF-7 cells when used at a concentration of 20  $\mu$ M. SC-13 (20  $\mu$ M) increases levels of cyclic GMP-AMP (cGAMP) synthase (cGAS), phosphorylated STING, chemokine (C-C motif) ligand 5 (CCL5), and CCL10 in HeLa cervical cancer and MCF-7 cells.<sup>2</sup> *In vivo*, SC-13 (5 mg/kg every other day), in combination with T cells expressing chimeric antigen receptors (CARs), reduces tumor volume and weight without affecting body weight, as well as increases the number of CD8<sup>+</sup> T cell tumor infiltrates, in a HeLa mouse xenograft model.

### References

1. He, L., Zhang, Y., Sun, H., *et al.* Targeting DNA flap endonuclease 1 to impede breast cancer progression. *EBioMedicine* **14**, 32-43 (2016).
2. Dong, Y., Wang, Y., Yin, X., *et al.* FEN1 inhibitor SC13 promotes CAR-T cells infiltration into solid tumours through cGAS-STING signalling pathway. *Immunology* **170**(3), 388-400 (2023).

#### WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

#### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

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