# **Product data sheet**



MedKoo Cat#: 555146		
Name: HAMNO		
CAS: 138736-73-9		
Chemical Formula: C <sub>17</sub> H <sub>13</sub> NO <sub>2</sub>		но
Exact Mass: 263.0946		
Molecular Weight: 263.296		NH
Product supplied as:	Powder	
Purity (by HPLC):	≥ 98%	
Shipping conditions	Ambient temperature	
Storage conditions:	Powder: -20°C 3 years; 4°C 2 years.	
	In solvent: -80°C 3 months; -20°C 2 weeks.	Ť

### 1. Product description:

HAMNO, also known as NSC-111847, is a potent and selective inhibitor of replication protein A (RPA) interactions with proteins involved in the replication stress response.

#### 2. CoA, QC data, SDS, and handling instruction

SDS and handling instruction, CoA with copies of QC data (NMR, HPLC and MS analytical spectra) can be downloaded from the product web page under "QC And Documents" section. Note: copies of analytical spectra may not be available if the product is being supplied by MedKoo partners. Whether the product was made by MedKoo or provided by its partners, the quality is 100% guaranteed.

3. Solubility data

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Solvent	Max Conc. mg/mL	Max Conc. mM		
DMF	30.0	113.94		
DMSO	30.0	113.94		
DMSO:PBS (pH 7.2)	0.25	0.95		
(1:30)				

#### 4. Stock solution preparation table:

Concentration / Solvent Volume / Mass	1 mg	5 mg	10 mg
1 mM	3.80 mL	18.99 mL	37.98 mL
5 mM	0.76 mL	3.80 mL	7.60 mL
10 mM	0.38 mL	1.90 mL	3.80 mL
50 mM	0.08 mL	0.38 mL	0.76 mL

### 5. Molarity Calculator, Reconstitution Calculator, Dilution Calculator

Please refer the product web page under section of "Calculator"

#### 6. Recommended literature which reported protocols for in vitro and in vivo study

In vitro study

1. Glanzer JG, Liu S, Wang L, Mosel A, Peng A, Oakley GG. RPA inhibition increases replication stress and suppresses tumor growth. Cancer Res. 2014 Sep 15;74(18):5165-72. doi: 10.1158/0008-5472.CAN-14-0306. Epub 2014 Jul 28. PMID: 25070753; PMCID: PMC4201622.

#### In vivo study

1. Glanzer JG, Liu S, Wang L, Mosel A, Peng A, Oakley GG. RPA inhibition increases replication stress and suppresses tumor growth. Cancer Res. 2014 Sep 15;74(18):5165-72. doi: 10.1158/0008-5472.CAN-14-0306. Epub 2014 Jul 28. PMID: 25070753; PMCID: PMC4201622.

#### 7. Bioactivity

Biological target:

HAMNO is a novel protein interaction inhibitor of replication protein A (RPA).

In vitro activity

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These data suggest that HAMNO selectively increased  $\gamma$ -H2AX staining in S-phase, indicative of increased replicative stress.

Reference: Cancer Res. 2014 Sep 15;74(18):5165-72. https://pubmed.ncbi.nlm.nih.gov/25070753/

#### In vivo activity

Ser33 of RPA32, an ATR substrate, is highly phosphorylated after two hours of treatment with 20  $\mu$ M of etoposide, which was reduced with the addition of 2  $\mu$ M HAMNO, and was nearly absent at higher concentrations, demonstrating an in vivo effect of HAMNO as an inhibitor of RPA32 phosphorylation by ATR in mice.

Reference: Cancer Res. 2014 Sep 15;74(18):5165-72. https://pubmed.ncbi.nlm.nih.gov/25070753/

Note: The information listed here was extracted from literature. MedKoo has not independently retested and confirmed the accuracy of these methods. Customer should use it just for a reference only.