# **PRODUCT** INFORMATION



**CAIX** Inhibitor S4

Item No. 31119

CAS Registry No.:	1330061-67-0	
Formal Name:	sulfamic acid,	
	4-[[[(3,5-dimethylphenyl)amino]	
	carbonyl]amino]phenyl ester	H <sub>2</sub> N O
MF:	$C_{15}H_{17}N_3O_4S$	
FW:	335.4	
Purity:	≥98%	
Supplied as:	A solid	
Storage:	-20°C	
Stability:	≥4 years	
Information represents the product experifications. Patch experific analytical results are provided on each certificate of analysis		

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## Laboratory Procedures

CAIX inhibitor S4 is supplied as a solid. A stock solution may be made by dissolving the CAIX inhibitor S4 in the solvent of choice, which should be purged with an inert gas. CAIX inhibitor S4 is soluble in the organic solvent DMSO at a concentration of approximately 30 mg/ml.

## Description

CAIX inhibitor S4 is an inhibitor of carbonic anhydrase IX (CAIX; K<sub>i</sub> = 0.007  $\mu$ M for the recombinant human enzyme).<sup>1</sup> It is selective for CAIX over CAI and CAII but does inhibit CAXII (K.s = 5.6, 0.55, and  $0.002\,\mu$ M, respectively). CAIX inhibitor S4 inhibits proliferation of HT-29 and MDA-MB-231, but not HCT116, cancer cells under anoxic conditions (IC<sub>50</sub>s = 20, 481, and >1,000  $\mu$ M, respectively). CAIX inhibitor S4 (10 mg/kg, i.p.) reduces the number of lung metastases, but not primary tumor growth, in an MDA-MB-231 mouse xenograft model.

## Reference

1. Gieling, R.G., Babur, M., Mamnani, L., et al. Antimetastatic effect of sulfamate carbonic anhydrase IX inhibitors in breast carcinoma xenografts. J. Med. Chem. 55(11), 5591-5600 (2012).

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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