**Overview**

**Product name**  
NS 398

**Description**  
COX-2 inhibitor

**Biological description**  
Selective cyclooxygenase-2 inhibitor (IC$_{50}$ values are 3.8 and >100 μM for COX-2 and COX-1, respectively). Orally active. Anti-inflammatory, antipyretic, analgesic and non-ulcerogenic *in vivo*. Induces apoptosis and cell cycle arrest.

**Purity**  
> 98%

**Properties**

**Chemical name**  
$N$-[2-(Cyclohexyloxy)-4-nitrophenyl]methanesulfonamide

**Molecular weight**  
314.36

**Chemical structure**

![Chemical Structure](image)

**Molecular formula**  
$C_{13}H_{18}N_2O_5S$

**CAS Number**  
123653-11-2

**PubChem identifier**  
4553

**Storage instructions**  
Store at Room Temperature. The product can be stored for up to 12 months.

**Solubility overview**  
Soluble in DMSO to 100 mM

**Handling**

Wherever possible, you should prepare and use solutions on the same day. However, if you need to make up stock solutions in advance, we recommend that you store the solution as aliquots in tightly sealed vials at -20°C. Generally, these will be useable for up to one month. Before use, and prior to opening the vial we recommend that you allow your product to equilibrate to room temperature for at least 1 hour.

Need more advice on solubility, usage and handling? Please visit our [frequently asked questions (FAQ) page](#) for more details.

**SMILES**  
\[O\cdot][N+](=O)c2cc(OC1CCCCC1)c(NS(C)(=O)=O)cc2\]

**Source**  
Synthetic
staining p27 KIP1 in MCF7 cells treated with NS 398 (ab120295), by ICC/IF. Increase in p27 KIP1 expression correlates with increased concentration of NS 398, as described in literature. The cells were incubated at 37°C for 6h in media containing different concentrations of ab120295 (NS 398) in DMSO, fixed with 4% formaldehyde for 10 minutes at room temperature and blocked with PBS containing 10% goat serum, 0.3 M glycine, 1% BSA and 0.1% tween for 2h at room temperature. Staining of the treated cells with ab32034 (1/100 dilution) was performed overnight at 4°C in PBS containing 1% BSA and 0.1% tween. A DyLight 488 goat anti-rabbit polyclonal antibody (ab96899) at 1/250 dilution was used as the secondary antibody.

Please note: All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE, NOT FOR USE IN HUMANS"

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