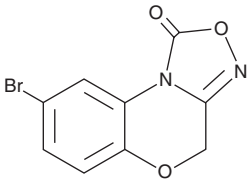
PRODUCT INFORMATION

NS 2028

Item No. 81600

CAS Registry No.:	204326-43-2
Formal Name:	8-bromo-4H-2,5-dioxa-3,9b-diaza-cyclopenta[a]naphthalen-1-one
MF:	$C_9H_5BrN_2O_3$
FW:	269.1
Purity:	≥98%
UV/Vis.:	λ_{max}: 218, 287 nm
Supplied as:	A crystalline 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

NS 2028 is supplied as a crystalline solid. A stock solution may be made by dissolving the NS 2028 in the solvent of choice, which should be purged with an inert gas. NS 2028 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of NS 2028 in these solvents is approximately 2, 45, and 80 mg/ml, respectively.

NS 2028 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, NS 2028 should first be dissolved in DMF and then diluted with the aqueous buffer of choice. NS 2028 has a solubility of approximately 5 µg/ml in a 10:90 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

NS 2028 is a specific inhibitor of soluble guanylyl cyclase. It inhibits purified bovine lung guanylyl cyclase in a concentration-dependent and irreversible manner with IC_{50} values of 30 and 200 nM for basal and NO-stimulated enzymes, respectively.[1] S-nitroso-glutathione-enhanced guanylyl cyclase activity in mouse cerebellum homogenates is inhibited by NS 2028 with an IC_{50} value of 17 nM. NS 2028 is about 4.7-fold more potent than ODQ, which has an IC_{50} value of 80 nM for inhibition of soluble guanylyl cyclase in the same assay.[1] NS 2028 does not inhibit particulate guanylyl cyclase or adenylyl cyclase.

Reference

1. Olesen, S., Drejer, J., Axelsson, O., *et al.* Characterization of NS 2028 as a specific inhibitor of soluble guanylyl cyclase. *Br.J.Pharmacol.* **123(2)**, 299-309 (1998).

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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