# **PRODUCT** INFORMATION



AG-126

Item No. 13297

CAS Registry No.:	118409-62-4		
Formal Name:	2-[(3-hydroxy-4-nitrophenyl)		
	methylene]-propanedinitrile		
Synonym:	Tyrphostin AG-126	HO	
MF:	C <sub>10</sub> H <sub>5</sub> N <sub>3</sub> O <sub>3</sub>		$\checkmark$
FW:	215.2		
Purity:	≥95%		
UV/Vis.:	λ <sub>max</sub> : 210, 305 nm	0211	N
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

AG-126 is supplied as a crystalline solid. A stock solution may be made by dissolving the AG-126 in the solvent of choice, which should be purged with an inert gas. AG-126 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of AG-126 in ethanol is approximately 0.15 mg/ml and approximately 10 mg/ml in DMSO and DMF.

AG-126 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, AG-126 should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. AG-126 has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

# Description

Tyrphostins are a family of protein tyrosine kinase inhibitors originally developed to inhibit cell growth by blocking the activity of certain growth factor receptor kinases (GFRK). The tyrphostin AG-126 selectively inhibits the phosphorylation of ERK1 (p44) and ERK2 (p42) at 25-50  $\mu$ M.<sup>1-2</sup> It blocks the production of TNF- $\alpha$  in vitro and in vivo, attenuating signaling through NF- $\kappa$ B, the induced expression of COX-2 and iNOS, and the inflammatory response in diverse animal models.<sup>1-5</sup> AG-126 is a poor inhibitor of epidermal GFRK  $(IC_{50} = 450 \,\mu\text{M})$  and platelet-derived GFRK  $(IC_{50} > 100 \,\mu\text{M})$ .<sup>6-7</sup>

# References

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- 2. Hanisch, U.K., Prinz, M., Angstwurm, K., et al. Eur. J. Immunol. 31(7), 2104-2115 (2001).
- 3. Cuzzocrea, S., McDonald, M.C., Mazzon, E., et al. Am. J. Pathol. 157(1), 145-158 (2000).
- 4. Ruetten, H. and Thiemermann, C. Br. J. Pharmacol. 122(1), 59-70 (1997).
- 5. Chatterjee, P.K., Patel, N.S.A., Kvale, E.O., et al. Kidney Int. 64(5), 1605-1619 (2003).
- 6. Gazit, A., Yaish, P., Gilon, C., et al. J. Med. Chem. 32(10), 2344-2352 (1989).
- 7. Sagara, Y., Ishige, K., Tsai, C., et al. J. Biol. Chem. 277(39), 36204-36215 (2002).

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

## SAFFTY 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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1180 EAST ELLSWORTH RD ANN ARBOR, MI 48108 · USA PHONE: [800] 364-9897 [734] 971-3335 FAX: [734] 971-3640 CUSTSERV@CAYMANCHEM.COM WWW.CAYMANCHEM.COM