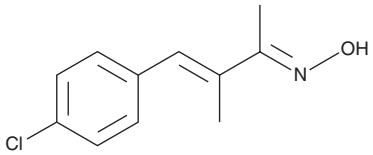
PRODUCT INFORMATION

AP-18

Item No. 11912

CAS Registry No.:	55224-94-7
Formal Name:	4-(4-chlorophenyl)-3-methyl-3-buten-2-one, oxime
MF:	$C_{11}H_{12}ClNO$
FW:	209.7
Purity:	≥98%
UV/Vis.:	λ_{max}: 216, 274 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

AP-18 is supplied as a crystalline solid. A stock solution may be made by dissolving the AP-18 in the solvent of choice, which should be purged with an inert gas. AP-18 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of AP-18 in ethanol is approximately 20 mg/ml and approximately 30 mg/ml in DMSO and DMF.

AP-18 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, AP-18 should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. AP-18 has a solubility of approximately 0.25 mg/ml in a 1:3 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

AP-18 is a channel blocker which reversibly inhibits TRPA1 (IC_{50}s = 3.1 and 4.5 µM, human and mouse, respectively).[1,2] It has minimal effect on TRPV1-4 or TRPM8.[1] AP-18 has been used to study TRPA1 signaling in mice and rats as well as *in vitro*.[1,3,4]

References

1. Petrus, M., Peier, A.M., Bandell, M., *et al.* A role of TRPA1 in mechanical hyperalgesia is revealed by pharmacological inhibition. *Mol. Pain* **3**, 40 (2007).
2. Fanger, C.M., del Camino, D., and Moran, M.M. TRPA1 as an analgesic target. *Open Drug Discov. J.* **2**, 64-70 (2010).
3. Chen, J., Kim, D., Bianchi, B.R., *et al.* Pore dilation occurs in TRPA1 but not in TRPM8 channels. *Mol. Pain* **5**, 3 (2009).
4. Taylor-Clark, T.E., Ghatta, S., Bettner, W., *et al.* Nitrooleic acid, an endogenous product of nitrative stress, activates nociceptive sensory nerves *via* the direct activation of TRPA1. *Mol. Pharmacol.* **75(4)**, 820-829 (2009).

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