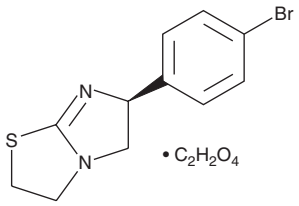
PRODUCT INFORMATION

L-*p*-Bromotetramisole (oxalate)

Item No. 18713

CAS Registry No.: 62284-79-1
Formal Name: (6S)-6-(4-bromophenyl)-2,3,5,6-tetrahydro-imidazo[2,1-b]thiazole, monoethanedioate
Synonyms: (-)-*p*-Bromotetramisole, L-*para*-Bromotetramisole
MF: $C_{11}H_{11}BrN_2S \bullet C_2H_2O_4$
FW: 373.2
Purity: ≥98%
UV/Vis.: λ_{max}: 225, 228 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

L-*p*-Bromotetramisole (oxalate) is supplied as a crystalline solid. A stock solution may be made by dissolving the L-*p*-bromotetramisole (oxalate) in the solvent of choice, which should be purged with an inert gas. L-*p*-Bromotetramisole (oxalate) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of L-*p*-bromotetramisole (oxalate) in these solvents is approximately 1, 20, and 30 mg/ml, respectively.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of L-*p*-bromotetramisole (oxalate) can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of L-*p*-bromotetramisole (oxalate) in PBS, pH 7.2, is approximately 5 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Four distinct human isoenzymes of alkaline phosphatase (AP) are known: intestinal (IAP), placental (PLAP), tissue non-specific (NSAP, also known as liver/bone/kidney AP), and germ cell AP (also known as placental-like AP, PLAP-like).[1] L-*p*-Bromotetramisole is a cell-permeable inhibitor of all four human AP isoenzymes (K_is =18 and 56 µM for PLAP and NSAP, respectively).[1-4] While PLAP is strongly inhibited by L-*p*-bromotetramisole, a second AP, possibly PLAP-like, shows only partial inhibition.[3] L-*p*-Bromotetramisole has been shown to inhibit a tyrosine phosphatase from *Drosophila* and, as a result, is also used as a tyrosine phosphatase inhibitor.[5,6]

References

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2. Van Belle, H., De Broe, M.E., and Wieme, R.J. *Clin. Chem.* **23(3)**, 454-459 (1977).
3. Sakiyama, T., Robinson, J.C., and Chou, J.Y. *J. Biol. Chem.* **254(3)**, 935-938 (1979).
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5. Fukami, Y. and Lipmann, F. Proc. *Natl. Acad. Sci. USA* **79(14)**, 4275-4279 (1982).
6. Yingst, D.R., Davis, J., and Schiebinger, R. *Eur. J. Pharmacol.* **461(1)**, 49-52 (2000).

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