

PRODUCT INFORMATION



MK-886 (sodium salt)

Item No. 10133

CAS Registry No.: 118427-55-7
Formal Name: 1-[(4-chlorophenyl)methyl]-3-[(1,1-dimethylethyl)thio]- α,α -dimethyl-5-(1-methylethyl)-1H-indole-2-propanoic acid, sodium salt

MF: C₂₇H₃₃ClNO₂S • Na

FW: 494.1

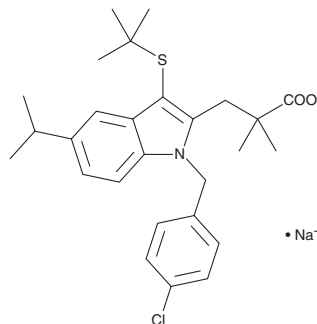
Purity: $\geq 99\%$

UV/Vis.: λ_{\max} : 226, 289 nm

Supplied as: A crystalline solid

Storage: -20°C

Stability: As supplied, 1 year from the QC date provided on the Certificate of Analysis, when stored properly



Laboratory Procedures

MK-886 (sodium salt) is supplied as a crystalline solid. A stock solution may be made by dissolving the MK-886 (sodium salt) in an organic solvent purged with an inert gas. MK-886 (sodium salt) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of MK-886 (sodium salt) in ethanol and DMSO is approximately 20 mg/ml and approximately 30 mg/ml in DMF.

MK-886 (sodium salt) is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, MK-886 (sodium salt) should first be dissolved in DMF and then diluted with the aqueous buffer of choice. MK-886 (sodium salt) has a solubility of approximately 0.2 mg/ml in a 1:4 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Arachidonic acid (Item No. 90010) and selected other polyunsaturated fatty acids are stereoselectively oxygenated at carbon 5 by the non-heme iron containing enzyme 5-lipoxygenase (5-LO).¹ The intervention of a second protein, 5-LO-activating protein (FLAP), is required before 5-LO can become catalytically active.² MK-886 binds to FLAP with high-affinity and prevents 5-LO activation. MK-886 inhibits leukotriene biosynthesis in leukocytes with an IC₅₀ of 2.5 nM.³ In human whole blood, leukotriene biosynthesis is inhibited by MK-886 with an IC₅₀ of 1.1 μ M.

References

1. Ford-Hutchinson, A.W., Gresser, M., and Young, R.N. 5-Lipoxygenase. *Annu. Rev. Biochem.* **63**, 383-417 (1994).
2. Abramovitz, M., Wong, E., Cox, M.E., *et al.* 5-Lipoxygenase-activating protein stimulates the utilization of arachidonic acid by 5-lipoxygenase. *Eur. J. Biochem.* **215**, 105-111 (1993).
3. Dixon, R.A.F., Diehl, R.E., Opas, E., *et al.* Requirement of a 5-lipoxygenase-activating protein for leukotriene synthesis. *Nature* **343**, 282-284 (1990).

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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