

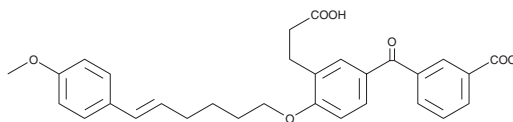
# PRODUCT INFORMATION



**LY223982**

Item No. 10010024

**CAS Registry No.:** 117423-74-2  
**Formal Name:** 5-(3-carboxybenzoyl)-2-[[[(5E)-6-(4-methoxyphenyl)-5-hexenyl]oxy]-benzenepropanoic acid  
**Synonyms:** CGS 23131, SKF 107324  
**MF:** C<sub>30</sub>H<sub>30</sub>O<sub>7</sub>  
**FW:** 502.6  
**Purity:** ≥95%  
**UV/Vis.:** λ<sub>max</sub>: 203, 260, 296 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

LY223982 is supplied as a crystalline solid. A stock solution may be made by dissolving the LY223982 in the solvent of choice, which should be purged with an inert gas. LY223982 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of LY223982 in these solvents is approximately 0.1, 20, and 30 mg/ml, respectively.

LY223982 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, LY223982 should first be dissolved in DMF and then diluted with the aqueous buffer of choice. LY223982 has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

## Description

Leukotriene B<sub>4</sub> (LTB<sub>4</sub>) is a dihydroxy fatty acid derived from the 5-lipoxygenase pathway of arachidonic acid metabolism and is an important mediator of the inflammatory process. The benzophenone dicarboxylic acid derivative LY223982 is a potent BLT<sub>1</sub> receptor antagonist. It inhibits the specific binding of radiolabeled-LTB<sub>4</sub> to isolated human neutrophils with an IC<sub>50</sub> value of 13.2 nM.<sup>1</sup> LY223982 inhibits the LTB<sub>4</sub>-induced aggregation of guinea pig and human neutrophils with IC<sub>50</sub> values of 74 and 100 nM, respectively.<sup>2</sup> However, concentrations of LY223982 up to 10 μM do not inhibit binding of LTB<sub>4</sub> to human BLT<sub>1</sub> or BLT<sub>2</sub> expressed in CHO cells.<sup>3</sup>

## References

1. Gapinski, D.M., Mallett, B.E., Froelich, L.L., *et al.* Benzophenone dicarboxylic acid antagonists of leukotriene B<sub>4</sub>. 2. Structure-activity relationships of the lipophilic side chain. *J. Med. Chem.* **33**(10), 2807-2813 (1990).
2. Jackson, W.T., Boyd, R.J., Froelich, L.L., *et al.* Specific inhibition of leukotriene B<sub>4</sub>-induced neutrophil activation by LY223982. *J. Pharmacol. Exp. Ther.* **263**(3), 1009-1014 (1992).
3. Yokomizo, T., Kato, K., Hagiya, H., *et al.* Hydroxyeicosanoids bind to and activate the low affinity leukotriene B<sub>4</sub> receptor, BLT2. *J. Biol. Chem.* **276**(15), 12454-12459 (2001).

### 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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## CAYMAN CHEMICAL

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