

# PRODUCT INFORMATION



**AX 048**

Item No. 13823

**CAS Registry No.:** 873079-69-7

**Formal Name:** 4-[(1,2-dioxohexadecyl)amino]-  
butanoic acid, ethyl ester

**MF:** C<sub>22</sub>H<sub>41</sub>NO<sub>4</sub>

**FW:** 383.6

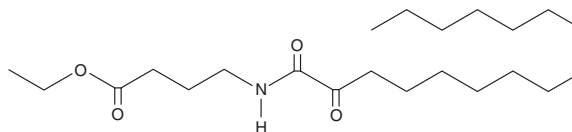
**Purity:** ≥98%

**UV/Vis.:** λ<sub>max</sub>: 242 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

AX 048 is supplied as a crystalline solid. A stock solution may be made by dissolving the AX 048 in the solvent of choice, which should be purged with an inert gas. AX 048 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of AX 048 in these solvents is approximately 5, 2, and 10 mg/ml, respectively.

## Description

The group IVA phospholipase A<sub>2</sub> (PLA<sub>2</sub>), known as calcium-dependent cytosolic PLA<sub>2</sub> (cPLA<sub>2</sub>), selectively releases arachidonic acid from membrane phospholipids, playing a central role in initiating the synthesis of prostaglandins and leukotrienes.<sup>1</sup> AX 048 is a potent group IVA cPLA<sub>2</sub> inhibitor that demonstrates 50% inhibition of the enzyme at a mole fraction (X<sub>I(50)</sub>) of 0.022. Pretreatment with AX 048 (ED<sub>50</sub> = 1.2 mg/kg) dose-dependently reduces thermal hyperalgesia evoked by carrageenan injection of rat hind paw.<sup>2</sup> At concentrations as high as 30 μM, AX 048 does not inhibit COX activity or interfere with central cannabinoid receptor signaling.<sup>2</sup>

## References

1. Dennis, E.A. Diversity of group types, regulation, and function of phospholipase A<sub>2</sub>. *J. Biol. Chem.* **269**(18), 13057-13060 (1994).
2. Yaksh, T.L., Kokotos, G., Svensson, C.I., *et al.* Systemic and intrathecal effects of a novel series of phospholipase A<sub>2</sub> inhibitors on hyperalgesia and spinal prostaglandin E<sub>2</sub> release. *J. Pharmacol. Exp. Ther.* **316**(1), 466-475 (2006).

### 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.

### WARRANTY AND LIMITATION OF REMEDY

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