

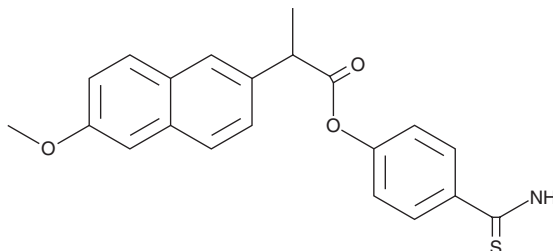
# PRODUCT INFORMATION



## ATB-346

Item No. 16234

**CAS Registry No.:** 1226895-20-0  
**Formal Name:** 6-methoxy- $\alpha$ -methyl-2-naphthaleneacetic acid, 4-(aminothioxomethyl)phenyl ester  
**MF:** C<sub>21</sub>H<sub>19</sub>NO<sub>3</sub>S  
**FW:** 365.5  
**Purity:**  $\geq$ 98%  
**UV/Vis.:**  $\lambda_{\text{max}}$ : 231 nm  
**Supplied as:** A crystalline solid  
**Storage:** -20°C  
**Stability:**  $\geq$ 4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

### Laboratory Procedures

ATB-346 is supplied as a crystalline solid. A stock solution may be made by dissolving the ATB-346 in the solvent of choice. ATB-346 is soluble in the organic solvent DMSO, which should be purged with an inert gas.

### Description

ATB-346 is a non-steroidal anti-inflammatory drug (NSAID) that releases hydrogen sulfide (H<sub>2</sub>S) and a derivative of naproxen (Item No. 70290).<sup>1</sup> It inhibits the proliferation of, and induces apoptosis in, A375 melanoma cells when used at a concentration of 100  $\mu$ M.<sup>2</sup> ATB-346 decreases prostaglandin E<sub>2</sub> (PGE<sub>2</sub>) production in inflammatory exudates, reduces paw edema, and increases plasma levels of sulfide in a mouse model of zymosan-induced arthritis.<sup>1,3</sup> It reduces the size of acetic acid-induced gastric ulcers in mice when administered at a dose of 60  $\mu$ mol/kg.<sup>1</sup> ATB-346 (30  $\mu$ mol/kg) improves motor function in a mouse model of spinal cord injury.<sup>4</sup>

### References

1. Wallace, J.L., Caliendo, G., Santagada, V., *et al.* Markedly reduced toxicity of a hydrogen sulphide-releasing derivative of naproxen (ATB-346). *Br. J. Pharmacol.* **159(6)**, 1236-1246 (2010).
2. De Cicco, P., Panza, E., Ercolano, G., *et al.* ATB-346, a novel hydrogen sulfide-releasing anti-inflammatory drug, induces apoptosis of human melanoma cells and inhibits melanoma development in vivo. *Pharmacol. Res.* **114**, 67-73 (2016).
3. Dief, A.E., Mostafa, D.K., Sharara, G.M., *et al.* Hydrogen sulfide releasing naproxen offers better anti-inflammatory and chondroprotective effect relative to naproxen in a rat model of zymosan induced arthritis. *Eur. Rev. Med. Pharmacol. Sci.* **19(8)**, 1537-1546 (2015).
4. Campolo, M., Esposito, E., Ahmad, A., *et al.* A hydrogen sulfide-releasing cyclooxygenase inhibitor markedly accelerates recovery from experimental spinal cord injury. *FASEB J.* **27(11)**, 4489-1199 (2013).

#### 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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