

# PRODUCT INFORMATION

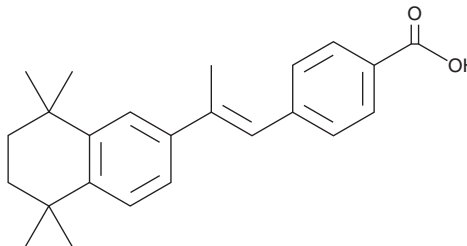


## TTNPB

Item No. 16144

**CAS Registry No.:** 71441-28-6  
**Formal Name:** 4-[(1E)-2-(5,6,7,8-tetrahydro-5,5,8,8-tetramethyl-2-naphthalenyl)-1-propen-1-yl]-benzoic acid  
**Synonyms:** AGN 191183, Arotinoid Acid, Ro 13-7410

**MF:** C<sub>24</sub>H<sub>28</sub>O<sub>2</sub>  
**FW:** 348.5  
**Purity:** ≥98%  
**UV/Vis.:** λ<sub>max</sub>: 229, 303 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

TTNPB is supplied as a crystalline solid. A stock solution may be made by dissolving the TTNPB in the solvent of choice, which should be purged with an inert gas. TTNPB is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of TTNPB in these solvents is approximately 0.1, 2, and 5 mg/ml, respectively.

TTNPB is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, TTNPB should first be dissolved in DMF and then diluted with the aqueous buffer of choice. TTNPB has a solubility of approximately 0.16 mg/ml in a 1:5 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

### Description

TTNPB is an analog of retinoic acid (Item No. 11017) that potently and selectively activates retinoic acid receptors (EC<sub>50</sub>s = 21, 4, and 2.4 nM for RAR $\alpha$ , RAR $\beta$ , and RAR $\gamma$ , respectively).<sup>1,2</sup> It does not act on retinoid X receptors and weakly agonizes farnesoid X receptor (EC<sub>50</sub> > 1  $\mu$ M).<sup>2,3</sup> TTNPB is used to study RAR action in diverse processes, including epidermal cell proliferation, embryogenesis, and stem cell differentiation.<sup>4-7</sup>

### References

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4. Minucci, S., Saint-Jeannet, J.-P., Toyama, R., *et al. Proc. Natl. Acad. Sci. USA* **93(5)**, 1803-1807 (1996).
5. Thacher, S.M., Standeven, A.M., Athanikar, J., *et al. J. Pharmacol. Exp. Ther.* **282(2)**, 528-534 (1997).
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#### 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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