

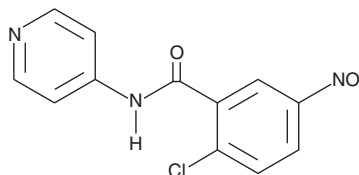
# PRODUCT INFORMATION



**T0070907**

Item No. 10026

**CAS Registry No.:** 313516-66-4  
**Formal Name:** 2-chloro-5-nitro-N-4-pyridinyl-benzamide  
**MF:** C<sub>12</sub>H<sub>8</sub>ClN<sub>3</sub>O<sub>3</sub>  
**FW:** 277.7  
**Purity:** ≥98%  
**Stability:** ≥1 year at -20°C  
**UV/Vis.:** λ<sub>max</sub>: 257 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

T0070907 is supplied as a crystalline solid. A stock solution may be made by dissolving the T0070907 in an organic solvent purged with an inert gas. T0070907 is soluble in organic solvents such as DMSO and dimethyl formamide (DMF). The solubility of T0070907 in these solvents is approximately 10 mg/ml.

T0070907 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, T0070907 should first be dissolved in DMF and then diluted with the aqueous buffer of choice. T0070907 has a solubility of 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

The peroxisome proliferator-activated receptor-γ (PPARγ) is the nuclear receptor responsible for transducing the therapeutic activity of the thiazolidinediones (TZDs). TZDs are a group of structurally related synthetic PPARγ agonists with antidiabetic actions *in vivo*.<sup>1,2</sup> There are many PPARγ agonists, including 15-deoxy-Δ<sup>12,14</sup>-prostaglandin J<sub>2</sub> and Azelaoyl PAF, which are naturally derived.<sup>3,4</sup> However, only a few antagonists have been reported.<sup>5</sup> T0070907 is a potent and selective antagonist of the human PPARγ receptor with an apparent IC<sub>50</sub> of 1 nM for the binding inhibition of rosiglitazone, a reference TZD. T0070907 covalently binds to Cys<sup>313</sup> of PPARγ, inducing conformational changes that block the recruitment of transcriptional cofactors to the PPARγ/RXR heterodimer.<sup>6</sup>

## References

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2. Cantello, B.C.C., Cawthorne, M.A., Cottam, G.P., *et al.* *J. Med. Chem.* **37**, 3977-3985 (1994).
3. Davies, S.S., Pontsler, A.V., Marathe, G.K., *et al.* *J. Biol. Chem.* **276**, 16015-16023 (2001).
4. Maxey, K.M., Hessler, E., MacDonald, J., *et al.* *Prostaglandins and Other Lipid Mediators* **62**, 15-21 (2000).
5. Wright, H.M., Clish, C.B., Mikami, T., *et al.* *J. Biol. Chem.* **275**, 1873-1877 (2000).
6. Lee, G., Elwood, F., McNally, J., *et al.* *J. Biol. Chem.* **277**(22), 19649-19657 (2002).

### 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](http://WWW.CAYMANCHEM.COM)