

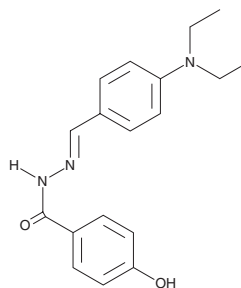
# PRODUCT INFORMATION



## DY 131

Item No. 17999

**CAS Registry No.:** 95167-41-2  
**Formal Name:** 4-hydroxy-benzoic acid  
2-[[4-(diethylamino)phenyl]  
methylene]hydrazide  
**Synonym:** GSK9089  
**MF:** C<sub>18</sub>H<sub>21</sub>N<sub>3</sub>O<sub>2</sub>  
**FW:** 311.4  
**Purity:** ≥98%  
**UV/Vis.:** λ<sub>max</sub>: 247, 363 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

DY 131 is supplied as a crystalline solid. A stock solution may be made by dissolving the DY 131 in the solvent of choice, which should be purged with an inert gas. DY 131 is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of DY 131 in these solvents is approximately 3 and 2 mg/ml, respectively.

DY 131 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, DY 131 should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. DY 131 has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

### Description

The estrogen-related receptors (ERRs) are orphan nuclear receptors with homology to the ER family and are expressed in tissues with high metabolic demand. DY 131 is a selective agonist of the ERRβ/γ receptor (EC<sub>50</sub> = 130 nM).<sup>1,2</sup> It does not affect the ERα receptor nor the ERs α and β at concentrations up to 30 μM.<sup>1,2</sup> DY 131 has been used to potentiate ERRγ-induced growth inhibition in LNCaP and DU145 prostate cancer cell lines in order to demonstrate an antiproliferative/tumor-suppressing function for ERRγ in prostate cancer.<sup>3</sup>

### References

1. Zuercher, W.J., Gaillard, S., Orband-Miller, L.A., *et al.* Identification and structure-activity relationship of phenolic acyl hydrazones as selective agonists for the estrogen-related orphan nuclear receptors ERRβ and ERRγ *J. Med. Chem.* **49(9)**, 3107-3109 (2005).
2. Yu, D.D. and Forman, B.M. Identification of an agonist ligand for estrogen-related receptors ERRβ/γ. *Bioorg. Med. Chem. Lett.* **15(5)**, 1311-1313 (2005).
3. Yu, S., Wang, X., Ng, C.-F., *et al.* ERRγ suppresses cell proliferation and tumor growth of androgen-sensitive and androgen-insensitive prostate cancer cells and its implication as a therapeutic target for prostate cancer. *Cancer Res.* **67(10)**, 4904-4914 (2007).

#### 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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