

**Product Name:** DY131

**Catalog No.:** 2266

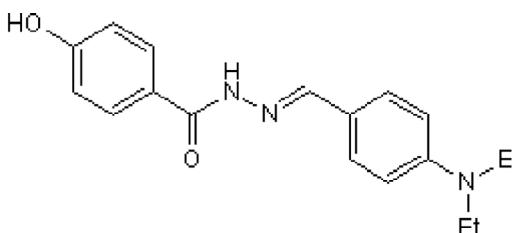
**Batch No.:** 1

CAS Number: 95167-41-2

IUPAC Name: *N*-(4-(Diethylaminobenzylidene))-*N'*-(4-hydroxybenzoyl)-hydrazine

**1. PHYSICAL AND CHEMICAL PROPERTIES**

**Batch Molecular Formula:** C<sub>18</sub>H<sub>21</sub>N<sub>3</sub>O<sub>2</sub>  
**Batch Molecular Weight:** 311.38  
**Physical Appearance:** Yellow solid  
**Solubility:** ethanol to 10 mM  
 DMSO to 100 mM  
**Storage:** Store at +4°C  
**Batch Molecular Structure:**



**2. ANALYTICAL DATA**

**TLC:** R<sub>f</sub> = 0.5 (Dichloromethane:Methanol [95:5])  
**HPLC:** Shows 99.4% purity  
**<sup>1</sup>H NMR:** Consistent with structure  
**Mass Spectrum:** Consistent with structure

**Microanalysis:**

	Carbon	Hydrogen	Nitrogen
Theoretical	69.43	6.8	13.49
Found	69.29	6.81	13.52

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

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**Description:**

DY131 is a selective agonist at estrogen-related receptors ERRβ (EC<sub>50</sub> range = 130 - 698 nM in vitro) and ERRγ. Displays minimal activity at ERRα, ERα and ERβ at concentrations up to 30 μM. In a mouse model of hepatotoxicity, DY131 protects against LPS induced liver injury. Suppresses growth and proliferation of prostate, esophagus, gastric and breast cancer cells; concentration-dependently increases cell proliferation in T98G and U87MG cells (EC<sub>50</sub> values are 54 nM and 62 nM respectively).

**Physical and Chemical Properties:**

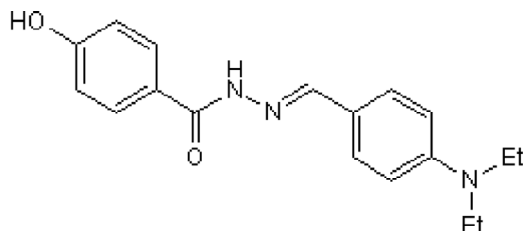
Batch Molecular Formula: C<sub>18</sub>H<sub>21</sub>N<sub>3</sub>O<sub>2</sub>

Batch Molecular Weight: 311.38

Physical Appearance: Yellow solid

**Minimum Purity:** ≥99%

**Batch Molecular Structure:**



**References:**

**Wang et al** (2023) ESRRG-PKM2 axis reprograms metabolism to suppress esophageal squamous carcinoma progression and enhance anti-PD-1 therapy efficacy. *J.Transl.Med.* **21** 605. PMID: 37679788.

**Ma et al** (2021) Estrogen-related receptor γ agonist DY131 ameliorates lipopolysaccharide-induced acute liver injury. *Front.Pharmacol.* **12** 626166. PMID: 33967760.

**Thouennon et al** (2019) Insights into the activation mechanism of human estrogen-related receptor γ by environmental endocrine disruptors. *Cell Mol.Life Sci.* **76** 4769. PMID: 31127318.

**Storage:** Store at +4°C

**Solubility & Usage Info:**

ethanol to 10 mM

DMSO to 100 mM

**Stability and Solubility Advice:**

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. \*Unless contradicted by product-specific protocols or instructions, our standard recommendations apply:

**SOLIDS:** Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

**SOLUTIONS:** We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

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