

## Certificate of Analysis

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**Product Name:** AC 55541

**Catalog No.:** 3369

**Batch No.:** 2

CAS Number: 916170-19-9

IUPAC Name: (2*E*)-2-[1-(3-Bromophenyl)ethylidene]  $\alpha$ -(benzoylamino)-3,4-dihydro-4-oxo-1-phthalazineacetic acid hydrazide

### 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:** C<sub>25</sub>H<sub>20</sub>BrN<sub>5</sub>O<sub>3</sub>· $\frac{1}{4}$ H<sub>2</sub>O

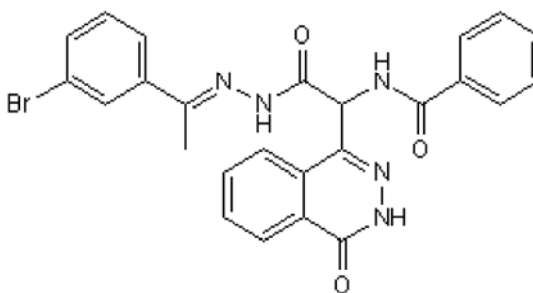
**Batch Molecular Weight:** 522.86

**Physical Appearance:** White solid

**Solubility:** DMSO to 50 mM

**Storage:** Store at -20°C

**Batch Molecular Structure:**



### 2. ANALYTICAL DATA

**HPLC:** Shows 96.6% purity

**<sup>1</sup>H NMR:** Consistent with structure

**Mass Spectrum:** Consistent with structure

**Microanalysis:**

	Carbon	Hydrogen	Nitrogen
Theoretical	57.43	3.95	13.39
Found	57.44	3.74	13.47

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

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**Description:**

AC 55541 is a potent and selective protease-activated receptor 2 (PAR<sub>2</sub>) agonist (pEC<sub>50</sub> = 6.7) that displays no activity at other PAR subtypes or at over 30 other receptors involved in nociception and inflammation. Stimulates cell proliferation, PI hydrolysis and Ca<sup>2+</sup> mobilization in vitro (pEC<sub>50</sub> values are 6.7, 5.9 and 6.6 respectively) and exhibits pronociceptive activity in vivo.

**Physical and Chemical Properties:**

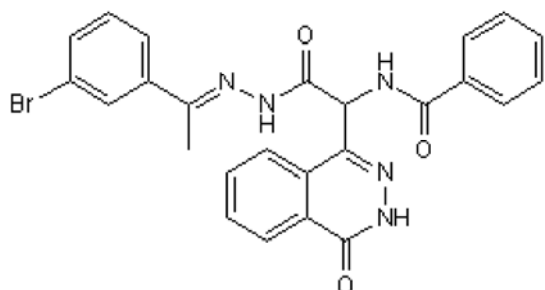
Batch Molecular Formula: C<sub>25</sub>H<sub>20</sub>BrN<sub>5</sub>O<sub>3</sub>·¼H<sub>2</sub>O

Batch Molecular Weight: 522.86

Physical Appearance: White solid

**Minimum Purity:** ≥97%

**Batch Molecular Structure:**



**Storage:** Store at -20°C

**CAUTION** - This product is light sensitive and we recommend that the solid material and any solutions obtained are protected from exposure to light.

**Solubility & Usage Info:**

DMSO to 50 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. Our standard recommendations are:

**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.

**References:**

**Gardell et al** (2008) Identification and characterization of novel small-molecule protease-activated receptor 2 agonists. *J.Pharmacol.Exp.Ther.* **327** 799. PMID: 18768780.

**Seitzberg et al** (2008) Discovery of potent and selective small-molecule PAR-2 agonists. *J.Med.Chem.* **51** 5490. PMID: 18720984.

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