

## Certificate of Analysis

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**Product Name:** SMIP 004

**Catalog No.:** 7192

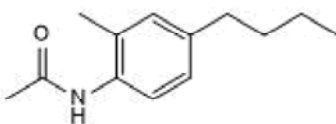
**Batch No.:** 1

CAS Number: 143360-00-3

IUPAC Name: *N*-(4-Butyl-2-methylphenyl)acetamide

### 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:** C<sub>13</sub>H<sub>19</sub>NO  
**Batch Molecular Weight:** 205.3  
**Physical Appearance:** White solid  
**Solubility:** DMSO to 100 mM  
**Storage:** Store at -20°C  
**Batch Molecular Structure:**



### 2. ANALYTICAL DATA

**HPLC:** Shows 99.9% purity  
**<sup>1</sup>H NMR:** Consistent with structure  
**Mass Spectrum:** Consistent with structure

**Microanalysis:**

	Carbon	Hydrogen	Nitrogen
Theoretical	76.06	9.33	6.82
Found	75.96	9.42	6.83

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

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CAS Number: 143360-00-3

IUPAC Name: *N*-(4-Butyl-2-methylphenyl)acetamide

**Description:**

SMIP 004 is an SKP2 (S-phase kinase-associated protein 2) inhibitor. Upregulates p27 and activates the unfolded protein response (UPR) in LNCaP prostate cancer cells overexpressing SKP2. Also induces oxidative stress. Induces proteasomal degradation of cyclin D1 and acts as CDK2 inhibitor. Arrests cell cycle in G<sub>1</sub> phase and induces apoptosis in prostate cancer cells, but not normal cells in vitro. Inhibits growth of breast and prostate cancer xenografts in mice. Also induces autophagy and reduces replication of MERS-CoV in VeroB4 cells.

**Physical and Chemical Properties:**

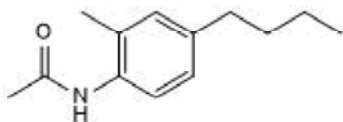
Batch Molecular Formula: C<sub>13</sub>H<sub>19</sub>NO

Batch Molecular Weight: 205.3

Physical Appearance: White solid

**Minimum Purity:** ≥98%

**Batch Molecular Structure:**



**References:**

**Gassen et al** (2019) SKP2 attenuates autophagy through Beclin1-ubiquitination and its inhibition reduces MERS-Coronavirus infection. *Nat. Commun.* **10** 5770. PMID: 31852899.

**Rico-Bautista et al** (2013) Small molecule-induced mitochondrial disruption directs prostate cancer inhibition via UPR signaling. *Oncotarget* **4** 1212. PMID: 23902736.

**Rico-Bautista et al** (2010) Chemical genetics approach to restoring p27Kip1 reveals novel compounds with antiproliferative activity in prostate cancer cells. *BMC Biol.* **8** 153. PMID: 21182779.

**Storage:** Store at -20°C

**Solubility & Usage Info:**

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. 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.

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