

# Roflumilast, PDE4 Inhibitor

Catalog	Unit
TBI2657 -10MG	10 mg
TBI2657 -50MG	50 mg

# **Product Details**

Formal Name: 3(Cyclopropylmethoxy)-N-(3,5-dichloro-4-pyridinyl)-4-(difluoromethoxy)-benzamide.

Alternate Name: BYK-20869.

Molecular Formula: C<sub>17</sub>H<sub>14</sub>N<sub>2</sub>Cl<sub>2</sub>F<sub>2</sub>O<sub>3</sub>.

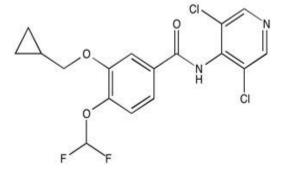
<u>Formula Weight:</u> 403.21 <u>CAS Number:</u> 162401-32-3.

<u>Purity:</u> ≥98%

Formulation: Powder.

Solubility: Soluble in DMSO (up to 25 mg/ml).

Storage: -20°C. Stability: ≥ 2 years.



# **Applications**

Phosphodiesterase 4 (PDE4) inhibitor.

### **Functions**

Roflumilast is a potent and selective phosphodiesterase (PDE4) inhibitor,  $IC_{50}$ =0.7, 0.9, 0.7, 0.2 nM for PDE4A1, PDE4A4, PDE4B1 and PDE4B2 respectively. Clinically, Roflumilast is used for the treatment of COPD. It improves sensory gating in humans and improves memory in rodent models. It mimics calorie restriction effects via activation of AMPK/SIRT1 and protects against diabetic nephropathy. Roflumilast also reduces weight gain by increasing energy expenditure and improves glucose metabolism in mice.

# **Application Procedures**

Roflumilast can be first dissolved in DMSO (up to 25mg/mL), then diluted to aqueous buffer. The solution can be stored at -20°C for up to 2 weeks.

#### **Relative Products**

TBI2438	EHNA Hydrochloride, PDE2 and ADA Inhibitor
TBI1220	Anagrelide HCl, PDE3 Inhibitor
TBI1221	Sildenafil citrate, PDE5 Inhibitor
TBI1008	IBMX, PDE Inhibitor (Pan Specific)
TBI1126	Vinpocetine, PDE1 Inhibitor
TBI1408	BC-11-38, PDE11 Inhibitor
TBI1319	BML-288, PDE2 Inhibitor
TBI2584	Cilostamide, PDE3 Inhibitor
TBI1131	Cilostazol, PDE3A Inhibitor

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