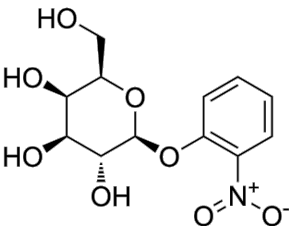


# ONPG

货号: **B26712**



## 产品信息

生物活性	ONPG is a colorimetric and spectrophotometric substrate for detection of β-galactosidase activity.																
CAS	369-07-3																
中文名称																	
分子量	301.25																
体外研究	<p>The enzyme displays high hydrolysis ability for ONPG (100%) and moderate activity for its natural substrate lactose (25.7%). However, the hydrolysis ability of the enzyme towards all other chromogenic nitrophenyl analogues is very weak, indicating that Gal308 is a β-galactosidase with narrow substrate specificity. To investigate the kinetic parameters of recombinant enzyme, the Michaelis-Menten constants (K<sub>m</sub>), turnover numbers (k<sub>cat</sub>), and catalytic efficiencies (k<sub>cat</sub>/K<sub>m</sub>) of Gal308 for ONPG and lactose are determined. The k<sub>cat</sub> and K<sub>m</sub> values are 464.7±7.8 s<sup>-1</sup> and 2.7±0.3 mM for ONPG, and 264.2±2.1 s<sup>-1</sup> and 7.1±0.8 mM for lactose, respectively. The k<sub>cat</sub>/K<sub>m</sub> value of the enzyme for ONPG (172.1 s<sup>-1</sup>mM<sup>-1</sup>) is 4.6-fold higher than that for lactose (37.2 s<sup>-1</sup>mM<sup>-1</sup>), which clearly demonstrated that the catalytic efficiency of Gal308 for ONPG is much higher than that for lactose.</p> <p><b>The accuracy of these methods have not been independently confirmed. They are for reference only.</b></p>																
体内研究																	
形式	Solid																
运输条件	Room temperature in continental US; may vary elsewhere.																
保存条件																	
溶解性	<p>In Vitro: <b>H<sub>2</sub>O : 8.33 mg/mL (27.65 mM);</b> ultrasonic and warming and heat to 60°C)</p> <p>配制储备液</p> <table><tr><th>浓度</th><th>溶剂</th><th>体积</th><th>质量</th></tr><tr><td>1 mM</td><td>3.3195 mL</td><td>16.5975 mL</td><td>33.1950 mL</td></tr><tr><td>5 mM</td><td>0.6639 mL</td><td>3.3195 mL</td><td>6.6390 mL</td></tr><tr><td>10 mM</td><td>0.3320 mL</td><td>1.6598 mL</td><td>3.3195 mL</td></tr></table> <p>*</p> <p>请根据产品在不同溶剂中的溶解度选择合适的溶剂配制储备液；一旦配成溶液，请分装保存，避免反复冻融造成的产品失效。</p> <p>储备液的保存方式和期限：-80°C, 6 months; -20°C, 1 month。-80°C 储存时，请在 6 个月内使用，-20°C 储存时，请在 1 个月内使用。</p>	浓度	溶剂	体积	质量	1 mM	3.3195 mL	16.5975 mL	33.1950 mL	5 mM	0.6639 mL	3.3195 mL	6.6390 mL	10 mM	0.3320 mL	1.6598 mL	3.3195 mL
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纯度	99.84%																

