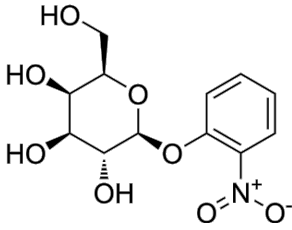


ONPG

货号: **AYB26712**



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_m), turn over numbers (k_{cat}), and catalytic efficiencies (k_{cat}/K_m) of Gal308 for ONPG and lactose are determined. The k_{cat} and K_m values are $464.7 \pm 7.8 \text{ s}^{-1}$ and $2.7 \pm 0.3 \text{ mM}$ for ONPG, and $264.2 \pm 2.1 \text{ s}^{-1}$ and $7.1 \pm 0.8 \text{ mM}$ for lactose, respectively. The k_{cat}/K_m value of the enzyme for ONPG ($172.1 \text{ s}^{-1}\text{mM}^{-1}$) is 4.6-fold higher than that for lactose ($37.2 \text{ s}^{-1}\text{mM}^{-1}$), which clearly demonstrated that the catalytic efficiency of Gal308 for ONPG is much higher than that for lactose.</p> <p>The accuracy of these methods have not been independently confirmed. They are for reference only.</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: H₂O : 8.33 mg/mL (27.65 mM); ultrasonic and warming and heat to 60°C)</p> <p>配制储备液</p> <table border="1"> <thead> <tr> <th>浓度</th> <th>溶剂体积</th> <th>质量</th> </tr> </thead> <tbody> <tr> <td>1 mM</td> <td>3.3195 mL</td> <td>16.5975 mg</td> </tr> <tr> <td>5 mM</td> <td>0.6639 mL</td> <td>3.3195 mg</td> </tr> <tr> <td>10 mM</td> <td>0.3320 mL</td> <td>1.6598 mg</td> </tr> </tbody> </table> <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。 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 mg	5 mM	0.6639 mL	3.3195 mg	10 mM	0.3320 mL	1.6598 mg
浓度	溶剂体积	质量											
1 mM	3.3195 mL	16.5975 mg											
5 mM	0.6639 mL	3.3195 mg											
10 mM	0.3320 mL	1.6598 mg											
纯度	99.84%												

