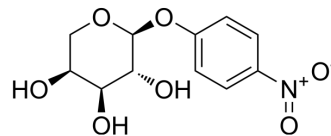


## p-Nitrophenyl $\alpha$ -L-arabinopyranoside

<b>Cat. No.:</b>	HY-134429
<b>CAS No.:</b>	1223-07-0
<b>Molecular Formula:</b>	C <sub>11</sub> H <sub>13</sub> NO <sub>7</sub>
<b>Molecular Weight:</b>	271.22
<b>Target:</b>	Biochemical Assay Reagents
<b>Pathway:</b>	Others
<b>Storage:</b>	Please store the product under the recommended conditions in the Certificate of Analysis.



### BIOLOGICAL ACTIVITY

<b>Description</b>	p-Nitrophenyl $\alpha$ -L-arabinopyranoside is a biochemical reagent. p-Nitrophenyl $\alpha$ -L-arabinopyranoside can be hydrolyzed by recombinant BgaA (rBgaA, isolated from <i>E. coli</i> BL21 (DE3) strain harboring pEBGA29). p-Nitrophenyl $\alpha$ -L-arabinopyranoside has potential application in enzyme activity detection <sup>[1][3]</sup> .
<b>In Vitro</b>	<p>The affinity <math>K_m</math> value of p-Nitrophenyl <math>\alpha</math>-L-arabinopyranoside with rBgaA is 6.06 mM<sup>[1]</sup>. p-Nitrophenyl <math>\alpha</math>-L-arabinopyranoside shows high activity to xylosidase–arabinosidase (<i>xarB</i>) gene<sup>[2]</sup>. Application of p-Nitrophenyl <math>\alpha</math>-L-arabinopyranoside in the detection of enzyme activity<sup>[3]</sup></p> <p>(1) 200 <math>\mu</math>L 2 mM p-Nitrophenyl <math>\alpha</math>-L-arabinopyranoside, 100 <math>\mu</math>L enzyme, 300 <math>\mu</math>L 50 mM phosphate buffer (pH 7.0) were incubated at 37<math>\times</math> for 0.5, 1, and 5 h.</p> <p>(2) 400 <math>\mu</math>L 0.5 M NaOH was added to terminate the reaction.</p> <p>(3) Measure the absorbance of the mixture at 405 nm.</p> <p>Note: In the presence of ginsenosides, the reaction was terminated by extraction with butanol.</p> <p>MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p>

### REFERENCES

- [1]. Kosugi A, et al. Characterization of two noncellulosomal subunits, ArfA and BgaA, from *Clostridium cellulovorans* that cooperate with the cellulosome in plant cell wall degradation. *J Bacteriol.* 2002 Dec;184(24):6859-65.
- [2]. Mai V, et al. Cloning, sequencing, and characterization of the bifunctional xylosidase–arabinosidase from the anaerobic thermophile thermoanaerobacter ethanolicus. *Gene.* 2000 Apr 18;247(1-2):137-43.
- [3]. Shin H Y, et al. Purification and Characterization of  $\alpha$ -L-Arabinopyranosidase and  $\alpha$ -L-Arabinofuranosidase from *Bifidobacterium breve* K-110, a Human Intestinal Anaerobic Bacterium Metabolizing Ginsenoside Rb2 and Rc[J]. *Applied and environmental microbiology*, 2003, 69(12): 7116-7123.

**Caution: Product has not been fully validated for medical applications. For research use only.**

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