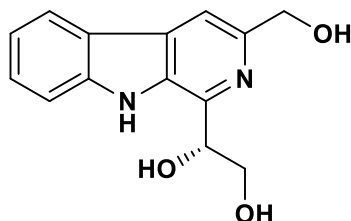


## PRODUCT DATA SHEET

Date: Mar. 25, 2020

### Pyridindolol (Inhibitor for $\beta$ -galactosidase)



Synonyms:

### Specifications

Code No.	: 00372
CAS#	: 55812-46-9
Molecular Formula	: C <sub>14</sub> H <sub>14</sub> N <sub>2</sub> O <sub>3</sub>
Molecular Weight	: 258.277
Source	: <i>Streptomyces alboverticillatus</i> MD401-C5
Appearance	: White crystals
Purity	: > 90% (HPLC)
Long Term Storage	: at - 20 °C
Solubility	: Soluble in MeOH, EtOH, n-BuOH, DMSO, DMF, 0.5M-HCl. Slightly soluble in H <sub>2</sub> O. Insoluble in Benzene, CHCl <sub>3</sub> and Ethyl ether.

### Application Notes

Pyridindolol has inhibitory activity against neutral bovine liver  $\beta$ -galactosidase which has optimal activity at pH 5.0 in tris acetate buffer. The IC<sub>50</sub> value is  $7.4 \times 10^{-6}$  M at pH 4.5.<sup>3)</sup> However, it shows weak activity against the enzyme in the neutral condition.<sup>3)</sup> Pyridindolol shows no antibacterial and antifungal activity at 100  $\mu$ g/ml and has low toxicity (LD<sub>50</sub> >500 mg/kg, intraperitoneal injection) to mice.<sup>1)</sup>

### References

- 1) Pyridindolol, a new  $\beta$ -galactosidase inhibitor produced by actinomycetes.  
Aoyagi T, Kumagai M, Hazato T, Hamada M, Takeuchi T, Umezawa H.  
*J. Antibiot.* 1975, **28**, 558-560.
- 2) The structures of pyridindolol, inhibitor of  $\beta$ -galactosidase.  
Kumagai M, Naganawa H, Aoyagi T, Umezawa H, Nakamura H, Iitaka Y.  
*J. Antibiot.* 1975, **28**, 876-880.
- 3) Inhibitory activity of pyridindolol on  $\beta$ - galactosidase.  
Kumagai M, Aoyagi T, Umezawa H.  
*J. Antibiot.* 1976, **29**, 696-703.