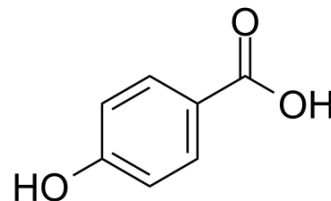


4-Hydroxybenzoic acid

Cat. No.:	HY-Y0264		
CAS No.:	99-96-7		
Molecular Formula:	C ₇ H ₆ O ₃		
Molecular Weight:	138.12		
Target:	Endogenous Metabolite; Bacterial		
Pathway:	Metabolic Enzyme/Protease; Anti-infection		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month



BIOLOGICAL ACTIVITY

Description	4-Hydroxybenzoic acid, a phenolic derivative of benzoic acid, could inhibit most gram-positive and some gram-negative bacteria, with an IC ₅₀ of 160 µg/mL.	
IC₅₀ & Target	Bacteria 160 µg/mL (IC ₅₀)	Human Endogenous Metabolite
In Vitro	Most of the gram-positive and some gram-negative bacteria are sensitive to trans 4-Hydroxycinnamic acid (4-HBA) and 4-Hydroxybenzoic acid at IC ₅₀ concentrations of 100-170 and 160 µg/mL, respectively. The antimicrobial activities of 4-Hydroxycinnamic acid and t4-HCA against 11 food pathogenic bacteria, 6 plant pathogenic bacteria, 2 yeasts and 15 plant pathogenic fungi are tested by the paper disc method. These compounds inhibit the growth of most of the bacteria and yeasts at concentrations of 200-400 µg. However, the inhibition is more effective against most of the gram-positive bacteria. When tested by the paper disc method, 4-Hydroxycinnamic acid has stronger antimicrobial activity than t4-HCA against <i>S. aureus</i> , <i>L. mesenteroides</i> , <i>S. cerevisiae</i> and <i>C. albicans</i> at a concentration of 50 µg. However, no inhibitory effect against fungi was observed at concentrations even up to 1000 µg ^[1] .	

REFERENCES

[1]. Cho JY, Antimicrobial activity of 4-hydroxybenzoic acid and trans 4-hydroxycinnamic acid isolated and identified from rice hull. Biosci Biotechnol Biochem. 1998 Nov;62(11):2273-6.

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

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