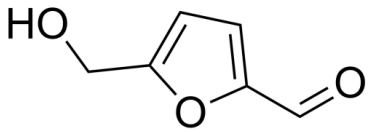
Data Sheet

Product Name:	5-Hydroxymethylfurfural
Cat. No.:	CS-D1116
CAS No.:	67-47-0
Molecular Formula:	$C_6H_6O_3$
Molecular Weight:	126.11
Target:	Fungal
Pathway:	Anti-infection
Solubility:	DMSO : ≥ 50 mg/mL (396.48 mM)



BIOLOGICAL ACTIVITY:

5-Hydroxymethylfurfural (2-Hydroxymethyl-5-furfural), derived from ***Cornus officinalis***, inhibits **yeast** growth and fermentation as stressors. IC50 & Target:Yeast[1]. ***In Vitro:*** It is found that furfural and HMF cause the attenuation of bulk translation activity and the assembly of cytoplasmic mRNP granules in Saccharomyces cerevisiae. Notably, a combination of furfural and HMF induce the remarkable repression of translation initiation and SG formation. Furfural and HMF can induce the formation of cytoplasmic mRNP granules, HMF also causes a gradual reduction in the polysome fraction and a concomitant increase in the 80S monosome fraction[1].

References:

[1]. Iwaki A, et al. Biomass conversion inhibitors furfural and 5-hydroxymethylfurfural induce formation of messenger RNP granules and attenuate translation activity in Saccharomyces cerevisiae. Appl Environ Microbiol. 2013 Mar;79(5):1661-7.

CAIndexNames:

2-Furancarboxaldehyde, 5-(hydroxymethyl)-

SMILES:

O=CC1=CC=C(CO)O1

Tel: 610-426-3128 Fax: 888-484-5008 E-mail: sales@ChemScene.com
Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA