



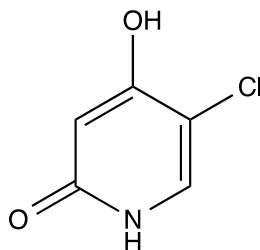
### Catalog #10-4601

#### Gimeracil

CAS# 103766-25-2

5-Chloro-4-hydroxypyridine-2(1H)-one

Lot # FBA3108



Gimeracil is a dihydropyrimidine dehydrogenase (DPD) inhibitor. DPD is involved in the degradation of pyrimidine-based chemotherapeutic drugs such as 5-fluorouracil (5-FU). Gimeracil is used along with 5-FU or Tegafur to prolong circulating concentrations of the drugs.<sup>1,2</sup> Gimeracil has also been shown to act as a radiosensitizer via inhibition of homologous recombination in the repair of DNA double strand breaks.<sup>3</sup>

- 1) Diasio (1999) *Clinical implications of dihydropyrimidine dehydrogenase inhibition*; Oncology(Williston Park). **13** 17
- 2) Kobayakawa and Kojima (2011), *Tegafur/gimeracil/oteracil (S-1) approved for the treatment of advanced gastric cancer in adults when given in combination with cisplatin: a review comparing it with other fluoropyrimidine-based therapies*; Onco.Targets Ther. **4** 193
- 3) Sakata *et al.* (2011), *Gimeracil, an inhibitor of dihydropyrimidine dehydrogenase, inhibits the early step in homologous recombination*; Cancer Sci. **102** 1712

#### PHYSICAL DATA

Molecular Weight:	145.54
Molecular Formula:	C <sub>5</sub> H <sub>4</sub> ClNO <sub>2</sub>
Purity:	>98% (HPLC)
	NMR: (Conforms)
Solubility:	DMSO (5 mg/ml)
Physical Description:	White solid
Storage and Stability:	Store as supplied at -20°C for up to 1 year from the date of purchase. Solutions in DMSO may be stored at -20°C for up to 3 months.

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