Product Data Sheet

Product Name: 3-Chloro-L-tyrosine
Cat. No.: GC33631

Chemical Properties

Cas. No.	7423-93-0		
SMILES	O=C(O)[C@@H](N)CC1=CC=C(O)C(Cl)=C1		
Formula	$C_9H_{10}ClNO_3$	M.Wt	215.63
Solubility	H_2O : 5 mg/mL (23.19 mM; ultrasonic and warming and heat to 60°C); DMSO : < 1 mg/mL (insoluble or slightly soluble)	Storage	Store at -20°C
General tips	For obtaining a higher solubility , please warm the tube at 37 ℃ and shake it in the ultrasonic bath for a while.Stock solution can be stored below -20℃ for several months.		
Shipping Condition	Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.		
Structure	3-Chloro-L-tyrosine		

Background

3-chloro-L-Tyrosine is a derivative of L-tyrosine.[1] It is formed from a reaction between the myeloperoxidase (MPO) product hypochlorous acid and L-tyrosine and has been used as a biomarker of oxidative damage induced by MPO. Plasma and atherosclerotic plaque levels of 3-chloro-L-tyrosine are increased in patients with various cardiovascular diseases.[2] Plasma levels of 3-chloro-L-tyrosine are also increased in patients with colorectal cancer. 3-chloro-L-Tyrosine is also formed in blood upon chlorine gas exposure and has been used as an indicator of chlorine poisoning during autopsy.[3]

1.Feeney, M.B., and Sch?neich, C.Tyrosine modifications in agingAntioxid. Redox Signal.17(11)1571-1579(2012) 2.Fleszar, M.G., Fortuna, P., Zawadzki, M., et al.Simultaneous LC-MS/MS-based quantification of free 3-nitro-l-tyrosine, 3-chloro-l-tyrosine, and 3-bromo-l-tyrosine in plasma of colorectal cancer patients during early postoperative periodMolecules25(21)5158(2020) 3.Nishio, T., Toukairin, Y., Hoshi, T., et

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al.Determination of 3-chloro-l-tyrosine as a novel indicator of chlorine poisoning utilizing gas chromatography-mass spectrometric analysisLeg. Med. (Tokyo)47101782(2020)