Hydrochloric Acid Solutions (HCl Solutions)

DNase, RNase and protease – none detected

Catalog Number **ML 007-01 (0.5 N HCl)**
ML 007-02 (1.0 N HCl)
Storage Temperature 15~30°C

Product Description
Hydrochloric acid is a strong inorganic acid that is utilized widely in research and in large scale applications. Its large scale applications include the refinement of ore for the production of tin and tantalum, the cleaning of metal products, and the hydrolysis of starch and proteins in the manufacture of food products. HCl is also frequently used in chemical synthesis, as in the preparation of polyhydroxylated amino acid derivatives, 3,4-disubstituted piperidines, norcarbovir analogs, and (α-hydroxyalkyl)phosphorus amphiphiles.
HCl is an highly strong, volatile acid that can incur fatal damage when injected, inhaled, or come in contact with skin. Protective wear for the eyes, mucous membrane, and skin should be worn when handling the product, bettermost in a chemical hood.

Storage/Stability
HCl solutions should be stored at 15~30°C. Deterioration of the liquid may be recognized by (1) precipitate or particulate matter throughout the solution, (2) cloudy appearance, (3) color change, and/or (4) pH change. Product label bears expiration date.

Precautions
For *In Vitro* Use Only

Product Profile	
Appearance	Clear colorless solution
DNase, RNase and protease	None detected
Sterility	Sterilized by 0.2 μm filtration system. Sterility tests are performed in accordance with protocols described in USP.

Molecular Weight
36.46 g/mole

Molecular Formula
HCl

References
Flogel, O., et al., A stereoselective and short total synthesis of the polyhydroxylated gamma-amino acid (-)-detoxinine, based on stereoselective preparation of dihydropyrrole derivatives from lithiated alkoxyallenes. Chemistry, 9(6), 1405-1415 (2003).
Williams, J. T., et al., Synthesis of 3,4-disubstituted piperidines by carbonyl ene and Prins cyclizations: a switch in diastereoselectivity between Lewis and Bronsted acid catalysts. Org. Lett., 4(21), 3727-3730 (2002).
Gourdel-Martin, M. E., and Huet, F., Synthesis of norcarbovir analogues, the first examples of cyclobutene nucleosides unsubstituted at the vinylic position. J. Org. Chem., 62(7), 2166-2172 (1997).
Albouy, D., et al., New (α-ydroxyalkyl) phosphorus Amphiphiles: Synthesis and dissociation constants. J. Org. Chem., 63(21), 7223-7230 (1998).

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