Product Data Sheet

Product Name: HATU
Cat. No.: GA10316

Chemical Properties

Cas. No.	148893-10-1		
Chemical Name	[dimethylamino(triazolo[4,5-b]pyridin-3-yloxy)methylidene]-dimethylazanium;hexafluorophosphate		
SMILES	CN(C)C(=[N+](C)C)ON1C2=C(C=CC=N2)N=N1.F[P-](F)(F)(F)(F)F		
Formula	$C_{10}H_{15}F_6N_6OP$	M.Wt	380.2
Solubility	≥ 16mg/mL in DMSO	Storage	Desiccate 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	HATU		

Background

HATU(1-[Bis(dimethylamino)methylene]-1H-1,2,3-triazolo[4,5-b]pyridinium 3-oxid hexafluorophosphate) is a reagent used inpeptide couplingchemistry to generate an active ester from a carboxylic acid. HATU can be used along with Hünig's base(N,N-diisopropylethylamine, DIPEA) to form amide bonds. The general solvent is DMF [1].

HATU has been commonly used in alcohol and amine acylation reactions such as amide and ester formation. Such reactions are commonly performed in two distinct reaction steps: (1) reaction of a carboxylic acid with HATU to form the OAt-active ester; then (2) addition of the nucleophile to the active ester solution to form the acylated product such as alcohol or amine [2, 3].

References:
[1]. Carpino L A. 1-Hydroxy-7-azabenzotriazole. An efficient peptide coupling additive[J]. Journal of the American Chemical Society, 1993, 115(10): 4397-4398.
[2]. Carpino L A, Imazumi H, El-Faham A, et al. The uronium/guanidinium peptide

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coupling reagents: Finally the true uroniumsalts[J]. AngewandteChemie International Edition, 2002, 41(3): 441-445.
[3]. Carpino L A, Imazumi H, Foxman B M, et al. Comparison of the Effects of 5-and 6-HOAt on Model Peptide Coupling Reactions Relative to the Cases for the 4-and 7-Isomers[J]. Organic letters, 2000, 2(15): 2253-2256.