

Product Data Sheet

Product Name: Z-Phe-Tyr(tBu)-diazomethylketone

Cat. No.: GC45599

Chemical Properties

Cas. No. 114014-15-2

SMILES O=C(N[C@@H](CC1=CC=CC=C1)C(N[C@H](C(C=[N+]=[N-])=O)CC2=CC=C(OC(C)(C)C)C=C2)=O)OCC3=CC=CC=C3

Formula C₃₁H₃₄N₄O₅

M.Wt 542.6

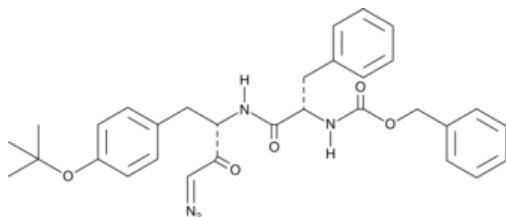
Solubility Ethyl Acetate: 10 mg/ml

Storage Store at -20°C

General For obtaining a higher solubility, please warm the tube at 37 °C and shake it in the tips ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Evaluation sample solution : ship with blue ice All other available size: ship with RT, or Condition blue ice upon request.

Structure



Background

Z-Phe-Tyr(tBu)-diazomethylketone is an inhibitor of cathepsin L ($K_{inact} = 200,000 \text{ M}^{-1}\text{s}^{-1}$).^{1,2} It is selective for cathepsin L over cathepsin S and cathepsin B ($K_{inacts} = 30$ and $10.3 \text{ M}^{-1}\text{s}^{-1}$, respectively). Z-Phe-Tyr(tBu)-diazomethylketone is active against bloodstream forms of *T. brucei* brucei clone 427-221a in vitro ($EC_{50} = 126 \mu\text{M}$).³

References

1. Shaw, E., Mohanty, S., Colic, A., et al. The affinity-labelling of cathepsin S with peptidyl diazomethyl ketones. Comparison with the inhibition of cathepsin L and calpain. FEBS Lett. 334(3), 340-342 (1993).
2. Kirschke, H., Wikstrom, P., and Shaw, E. Active center differences between cathepsins L and B:

Caution: Product has not been fully validated for medical applications. For research use only.

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The S1 binding region. FEBS Lett. 228(1), 128-130 (1988).

3. Nkemngu, N.J., Grande, R., Hansell, E., et al. Improved trypanocidal activities of cathepsin L inhibitors. Int. J. Antimicrob. Agents 22(2), 155-159 (2003).

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