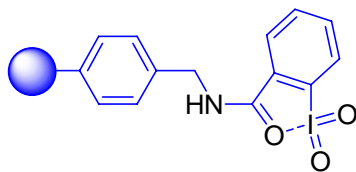


PL-IBX Amide Resin



Description

Polymer supported IBX amide

Synonyms

IBX amide

Applications

Dess-Martin periodinane (or DMP) was the first hypervalent iodine reagent to gain popularity for the selective oxidation of alcohols to carbonyls. Alternative versions of this reagent were also introduced, such as 2-iodoxy benzoic acid (or IBX). However, these reagents are explosive and may also suffer solubility problems limiting the choice of organic solvents which may be used.

To overcome some of these drawbacks, a number of related compounds and their polymer-supported variants have been developed. These include diacetoxiodobenzene-derived materials.

We have found that the coupling of 2-iodobenzic acid to PL-AMS Resin provides a fully scalable route to the manufacture of IBX amide. Consequently this reagent provides a practical and economical means for oxidation of a variety of alcohols.

Typical procedure involves reaction of a 2-3 fold excess of PL-IBX with a solution of the corresponding alcohol at room temperature. Reaction time will depend on the reactivity of the alcohol. Recycling of the resin by oxidation may be possible.

References

- (1) Dess, D. B.; Martin, J. C. *J. Org. Chem.* **1983**, *48*, 4155-4156.
- (2) Ficht, S.; Mulbaier, M.; Giannis, A. *Tetrahedron* **2001**, *57*, 4863-4866.
- (3) Chung, W. J.; Kim, D. K.; Lee, Y. S. *Tetrahedron Lett.* **2003**, *44*, 9251-9254.
- (4) Zhdankin, V. V.; Kuposov, A. Y.; Netzels, B. C.; Yashin, N. V.; Rempel, B. P.; Ferguson, M. J.; Tykwinski, R. R. *Ang. Chem. Int. Ed.* **2003**, *42*, 2194-2196.
- (5) Chung, W. J.; Kim, D. K.; Lee, Y. S. *Synlett* **2005**, 2175-2178.
- (6) Lecarpentier, P.; Crosignani, S.; Linclau, B. *Mol. Diversity* **2005**, *9*, 341-351.

Products Information

Microporous

PL-IBX Amide Resin

1.0mmol/g 150-300 μ m (50-100 mesh)

