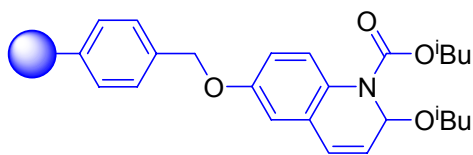


# PL-IIDQ Resin



## Description

Polymer supported IIDQ

## Synonyms

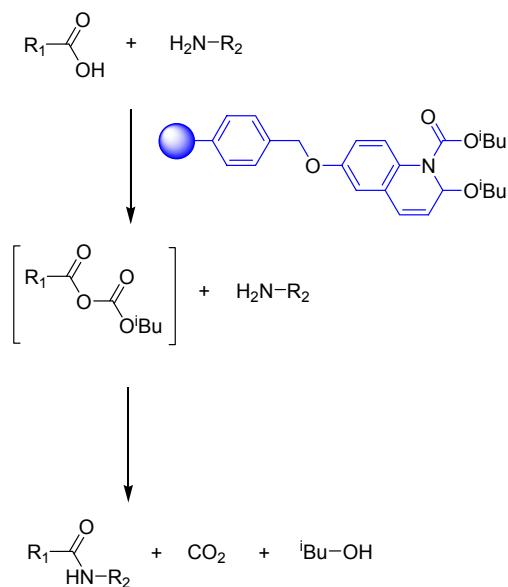
2-Isobutoxy-1-isobutoxycarbonyl-1,2-dihydroquinoline polystyrene

## Applications

PL-IIDQ is a polymer supported equivalent of the classical solution phase coupling agent and provides in-situ activation of carboxylic acids. Addition of a mixture of carboxylic acid and amine to solvated PL-IIDQ creates the asymmetrical anhydride which quickly reacts with the amine forming an amide bond. The only by-products created are carbon dioxide and isobutanol.

Unlike some active ester species which rapidly decompose in solution (HOBt esters for example), the asymmetrical anhydride formed using PL-IIDQ is sufficiently stable to allow prolonged reaction times with particularly unreactive amines, such as anilines.

It is possible to recycle this polymer supported coupling reagent by thorough washing and then re-activation with isobutylchloroformate.



## References

Valeur, E & Bradley, M (2005), Chem Commun, 1164

## Products Information

Microporous

**PL-IIDQ Resin**

1.7mmol/g 150-300 $\mu$ m (50-100 mesh)

See Also

Resins For Solution Phase Synthesis: Solid Supported Coupling Agents:

PL-Mukaiyama Resin, PL-DCC Resin, PL-EDC Resin, PL-HOBt Resin, PL-TFP Resin