



# Epin and Boronic Esters

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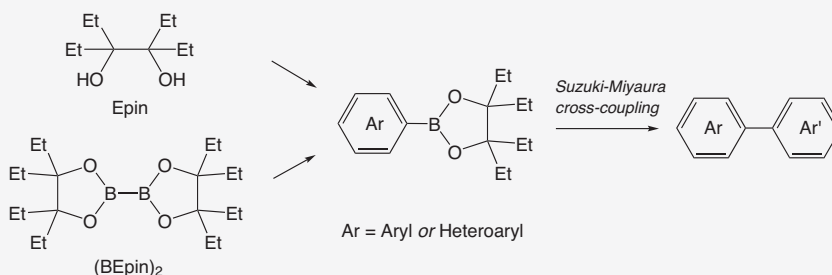
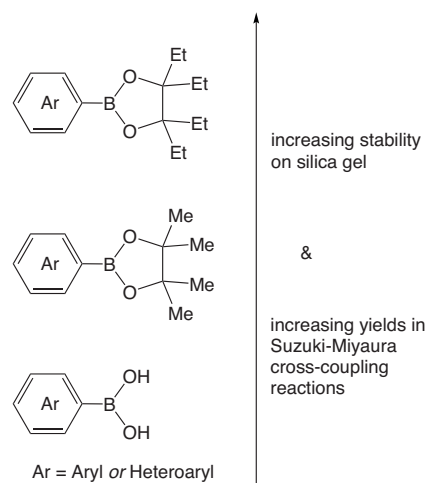
Boronic acids and their esters are long-known reagents especially useful in Suzuki-Miyaura cross-coupling reactions. One of the disadvantages of these compounds is their limited hydrolytic stability during chromatographic purification. Introduction of a new class of boronic esters with enhanced stability provided by the 3,4-diethyl-hexane-3,4-diol (**Epin**) fragment allows one to overcome these limitations [1].

Therefore we present the diol precursor **Epin**, the respective diboronate (**BEpin**)<sub>2</sub> and boronic acid esters as commercially available building blocks for different reactions.

## Benefits of Epin-derived boronic reagents:

- Higher yields and less side products in cross-coupling reactions compared to generally used boronic esters
- High stereoselective impact on asymmetric reactions due to the Epin-substituent [2,3]
- Chromatographic stability of boronic esters with various functional groups

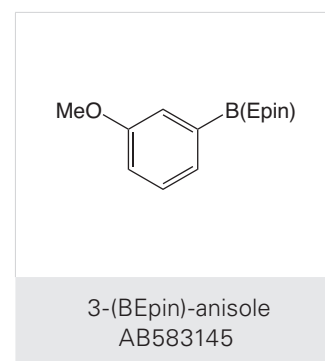
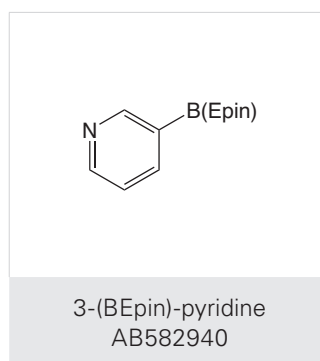
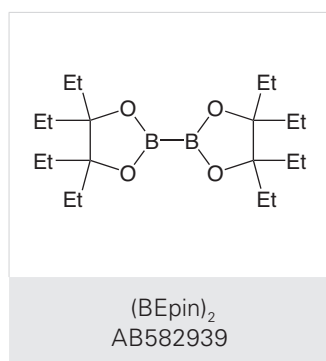
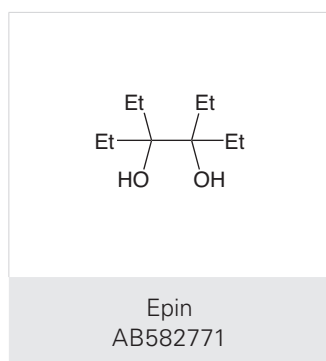
abcr offers both **Epin** and (**BEpin**)<sub>2</sub> as precursors of Epin-boronates. These two complementary reagents open a versatile toolbox leading towards the generation of boronic acid derivatives *via* e.g. condensation or coupling.



➤ Having the know-how of production of the above mentioned materials, abcr can also offer custom synthesis of a broad variety of boronic acid Epin esters for R&D purposes.



## Examples of Epin and Boronic Esters Designed and Manufactured by abcr service lab



### References

- [1] Oka et al. *Org. Lett.* 2022, 24, 3510-3514.  
 [2] Incerti-Pradillos et al. *Angew. Chem. Int. Ed.* 2013, 52, 5338-5341.  
 [3] Villar et al. *Chem. Eur. J.* 2018, 24, 16262-16265.

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