

Cross-coupling reaction is well known as one of useful method in Organic Synthetic Chemistry, used widely in many fields, for example, pharmaceuticals, biologically active substances and Material for organic electronics.

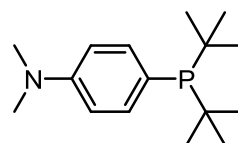
[4-(N,N-Dimethylamino)phenyl]di-tert-butylphosphine (**Amphos**) is available from Kanto Chemical.

This ligand is highly active because it has high-electron-releasing ^tBu and also stable, then recently it attracts attention from catalytic chemical fields.

★ Features

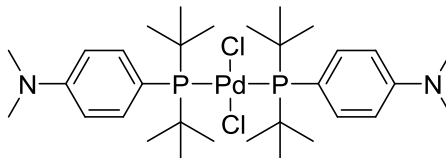
- Stable & Low enzyme inactivation, possible to handle in a air.
- Useful for various type cross-coupling reactions

Ex) Suzuki-Miyaura reaction, Buchwald-Hartwig reaction, Negishi reaction



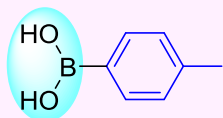
Amphos

[Suzuki-Miyaura coupling reaction] ¹⁾

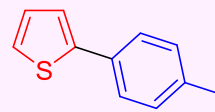
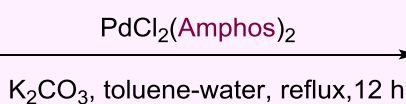


Alkyl halide

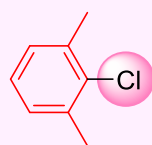
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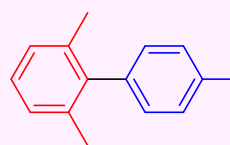
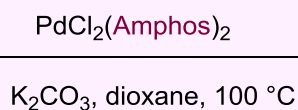
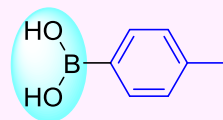
Organic boron compound



Yield: 96%¹⁾



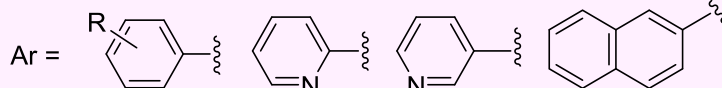
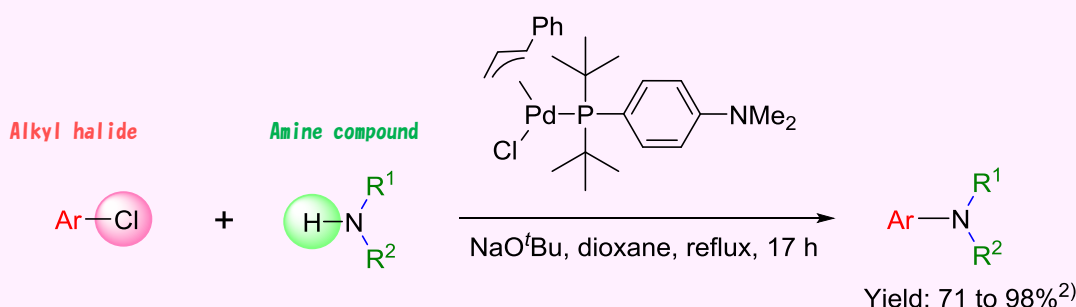
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Yield: 90%¹⁾

★ Product List

Cat. #	Name	Packing Size
11335-55	[4-(N,N-Dimethylamino)phenyl]di-tert-butylphosphine [932710-63-9] FW:265.37	5 g
11335-65		1 g

[Buchwald-Hartwig coupling reaction]²⁾**Related products ~ Cross Coupling Ligands and Pd-Catalysts ~**

	Cat. No.	Product Name	Structure	Suzuki-Miyaura	Buchwald-Hartwig	Negishi	Sonogashira	Stability (under Air)
Ligand	11335-55 11335-65	Amphos		○	○	○		○
	11051-55 11051-65	XPhos [564483-18-7] 2-Dicyclohexyl phosphino-2',4',6'-triisopropylbiphenyl FW: 476.72		○	○			○
Buchwald Ligand	11049-55 11049-65	SPhos [657408-07-6] 2-Dicyclohexyl phosphino-2',6'-dimethoxybiphenyl FW: 410.53		○	○			○
	40864-35 40864-55 40864-65	Pd(PPh ₃) ₄ [14221-01-3] Tetrakis(triphenylphosphine)palladium(0) FW: 1155.56		○		○	○	×
Pd-Catalyst	34868-1A	Pd(dppf)Cl ₂ ·CH ₂ Cl ₂ [95464-05-4] [1,1'-Bis(diphenylphosphino)ferrocene]palladium(II) Dichloride FW: 816.64		○		○		○

【Reference】

- 1) A. S. Guram, *et. al.*, *J. Org. Chem.*, **2007**, 72, 5104-5112.
- 2) C. Anthony, *et. al.*, *Organometallics*, **2011**, 30, 4432-4436.

- Please use the products listed in the catalog as reagents (chemicals used for testing or research purpose).
- Product information is subject to change without notice. For the latest information, please have a look at our website "Cica-Web".

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