Chemicals

# Cross-coupling reactions

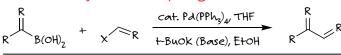
# Supporting your reactions with high-purity building blocks and a wide range of ligands, additives, metals, and more

Cross-coupling reactions are an important application in organic and pharmaceutical chemistry. Typically used in forming C-C, C=C, or C-N bonds, these reactions open up new intermediates that eventually allows scientists to build their molecules into a desired product.

At Thermo Fisher Scientific, helping our chemists and scientists discover new drug molecules through organometallic chemistry is one of the many ways we help our world become healthier, cleaner, and safer.

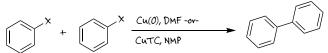


#### Suzuki-Miyaura coupling



Cat. No.	Product name	Pack size
20238	Tetrakis(triphenylphosphine)palladium(0), 99%, Thermo Scientific Chemicals	25 g, 100 g
36499	Potassium tert-butoxide, pure, 20 wt.% solution in THF, Thermo Scientific Chemicals	50 mL, 250 mL
18159	Tetrahydrofuran, 99.9%, extra pure, anhydrous, stabilized with BHT, Thermo Scientific Chemicals	250 mL, 1 L, 2.5 L
14042	Triphenylphosphine, 99%, Thermo Scientific Chemicals	25 g, 250 g, 1 kg

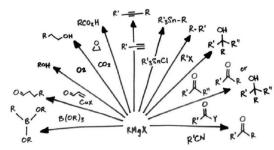
### Ullman biaryl synthesis



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Cat. No.	Product name	Pack size
H64950	Copper(I) thiophene-2-carboxylate, Thermo Scientific Chemicals	5 g
36438	1-Methyl-2-pyrrolidinone, 99.5%, Extra Dry over Molecular Sieve, AcroSeal™, Thermo Scientific Chemicals	100 mL, 1 L, 2.5 L
19657	Copper, 99%, powder, max. 106µm (-140 mesh), Thermo Scientific Chemicals	25 g, 500 g
34843	N,N-Dimethylformamide, 99.8%, Extra Dry over Molecular Sieve, AcroSeal, Thermo Scientific Chemicals	100 mL, 500 mL, 1 L, 2.5 L

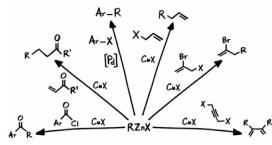


#### Grignard reactions



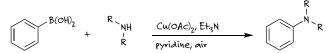
Cat. No.	Product name	Pack size
L08120	Magnesium, turnings, 99+%, Thermo Scientific Chemicals	100 g, 500 g
42382	lodine, Reagent ACS, 99.8%, Thermo Scientific Chemicals	5 g, 500 g, 2.5 kg
A12766	1,2-Dibromoethane, 99%, Thermo Scientific Chemicals	250 g
010515	Lithium chloride, anhydrous, 99%, Thermo Scientific Chemicals	250 g, 1 kg
18159	Tetrahydrofuran, 99.9%, extra pure, anhydrous, stabilized with BHT, Thermo Scientific Chemicals	250 mL, 1 L, 2.5 L
A16305	Di-n-butyl ether, 99%, Thermo Scientific Chemicals	500 mL, 2.5 L

#### Organozinc reactions



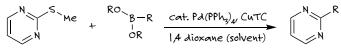
Cat. No.	Product name	Pack size
B23615	Copper(II) acetate, anhydrous, 98%, Thermo Scientific Chemicals	25 g, 100 g, 500 g
011605	Copper (I) bromide, 98%, Thermo Scientific Chemicals	50 g
000905	Bromine liquid, 99.8%, Thermo Scientific Chemicals	25 g, 1 kg
38705	lodine, pure, Thermo Scientific Chemicals	25 g, 100 g, 250 g, 1 kg
26815	Palladium, 99.9%, (trace metal basis), sponge, Thermo Scientific Chemicals	1 g
31791	Copper, 99+%, turnings, Thermo Scientific Chemicals	250 g, 1 kg

#### Chan-Lam coupling



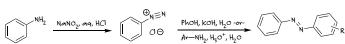
Cat. No.	Product name	Pack size
42359	Copper(II) acetate monohydrate, ACS reagent, Thermo Scientific Chemicals	100 g, 500 g, 2.5 kg
15791	Triethylamine, 99%, pure, Thermo Scientific Chemicals	5 mL, 100 mL, 1 L, 2.5 L
34846	Dichloromethane, 99.8%, Extra Dry over Molecular Sieve, Stabilized, AcroSeal™, Thermo Scientific Chemicals	500 mL, 1 L, 2.5 L
41854	Pyridine, 99+%, ACS reagent, Thermo Scientific Chemicals	1 L, 500 mL, 2.5 L
A11535	Molecular sieves, 4A, powder, Thermo Scientific Chemicals	250 g, 1000 g, 5000 g

#### Libeskind-Srogl coupling



Cat. No.	Product name	Pack size
20238	Tetrakis(triphenylphosphine)palladium(0), 99%, Thermo Scientific Chemicals	25 g, 100 g
H64950	Copper(I) thiophene-2-carboxylate, Thermo Scientific Chemicals	5 g
18159	Tetrahydrofuran, 99.9%, extra pure, anhydrous, stabilized with BHT, Thermo Scientific Chemicals	250 mL, 1 L, 2.5 L
A11535	Molecular sieves, 4A, powder, Thermo Scientific Chemicals	250 g, 1000 g, 5000 g
11711	1,4-Dioxane, 99+%, extra pure, stabilized, Thermo Scientific Chemicals	1 L, 2.5 L

#### Azo coupling

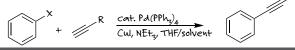


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Cat. No.	Product name	Pack size
42435	Sodium Nitrite, +97%, For analysis, Thermo Scientific Chemicals	5 g, 500 g, 2 kg
42379	Hydrochloric acid, ACS reagent, ca. 37% solution in water, Thermo Scientific Chemicals	500 mL, 2.5 L, 25 L
42408	Potassium carbonate, 99+%, ACS reagent, anhydrous, Thermo Scientific Chemicals	100 g, 500 g
42414	Potassium hydroxide, ca. 85%, ACS reagent, Thermo Scientific Chemicals	25 g, 500 kg, 2.5 kg, 5 kg
17684	Methanol, 99.9%, for analysis, Thermo Scientific Chemicals	500 mL, 2.5 L, 10 L, 25 L
044526	Phenol, 99.5%, unstab., Thermo Scientific Chemicals	100 g
036289	Acetic acid, glacial, ACS, 99.7+%, Thermo Scientific Chemicals	100 mL, 500 mL
42452	Sulfuric acid, for analysis ACS, 95% solution in water, Thermo Scientific Chemicals	500 mL, 2.5 L
42324	Acetone, 99.6%, ACS reagent, Thermo Scientific Chemicals	500 mL, 1 L, 2.5 L, 25 L

#### Negishi coupling

Cat. No.	Product name	Pack size
20238	Tetrakis(triphenylphosphine)palladium(0), 99%, Thermo Scientific Chemicals	25 g, 100 g
18159	Tetrahydrofuran, 99.9%, extra pure, anhydrous, stabilized with BHT, Thermo Scientific Chemicals	250 mL, 1 L, 2.5 L
014112	Triphenylphosphine, 99+%, Thermo Scientific Chemicals	25 g, 100 g, 500 g
43282	Cyclopropylzinc bromide, 0.5M solution in THF, AcroSeal™, Thermo Scientific Chemicals	50 mL

#### Sonogashira coupling



Cat. No.	Product name	Pack size
20238	Tetrakis(triphenylphosphine)palladium(0), 99%, Thermo Scientific Chemicals	25 g, 100 g
18159	Tetrahydrofuran, 99.9%, extra pure, anhydrous, stabilized with BHT, Thermo Scientific Chemicals	250 mL, 1 L, 2.5 L
19490	Copper(I) iodide, 98%, Thermo Scientific Chemicals	250 g, 1 kg
15791	Trimethylamine, 99%, pure, Thermo Scientific Chemicals	5 mL, 100 mL, 10 L

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