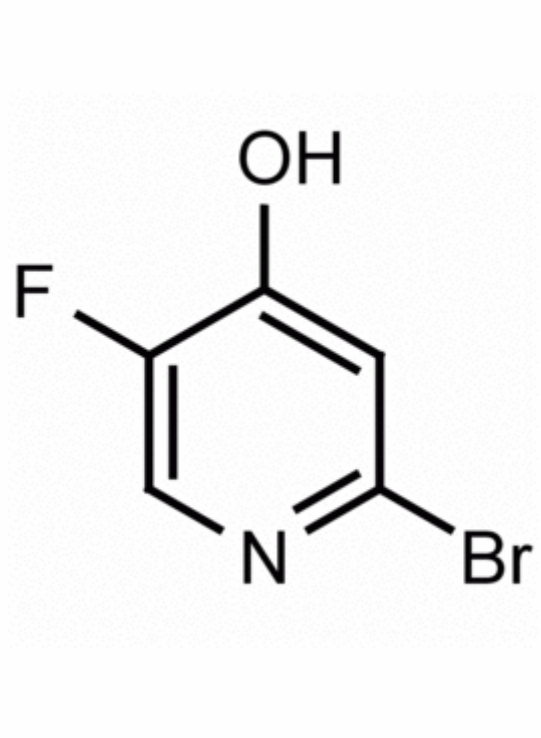
Frontier Scientific, Inc.
P.O. Box 31
Logan, UT 84323-0031
Phone: 1-435-753-1901
www.frontiersci.com
sales@frontiersci.com

Technical Data Sheet
Catalog No: **B13503**

For research use only
Not intended or approved for diagnostic or therapeutic use.

Product Name: 2-Bromo-5-fluoro-4-hydroxypyridine

Catalog Number: B13503



Sizes Available: 1 g, 5g, and larger sizes available

Molecular weight: 199.19 g/mol

Molecular Formula: C_5H_3BrFNO

CAS Number: 1196152-88-1

Storage: Store at 2-8 C°, under dry conditions.

Synonyms: 2-Bromo-5-fluoropyridin-4-ol, 1196152-88-1, 2-Bromo-5-fluoro-4-hydroxypyridine, 2-bromo-5-fluoro-1H-pyridin-4-one, SCHEMBL16033299
Uses: Synthesis building block, Organic Synthesis, pyridine nitrogen heterocycle, synthesis, bromine reactions

2-Bromo-5-fluoro-4-hydroxypyridine, is a synthetic fine chemical useful in the synthesis of pharmaceuticals and fine organic chemicals.

Aryl Bromide Coupling Reactions Selected References:

Ackerman, Laura K. G., Matthew M. Lovell, and Daniel J. Weix. Multimetallic Catalysed Cross-Coupling of Aryl Bromides with Aryl Triflates. *Nature (London, United Kingdom)* 524, (2015): 454–57. https://doi.org/10.1038/nature14676.

Atwater, Bruce, Nalin Chandrasoma, David Mitchell, Michael J. Rodriguez, Matthew Pompeo, Robert D. J. Froese, and Michael G. Organ. The Selective Cross-Coupling of Secondary Alkyl Zinc Reagents to Five-Membered-Ring Heterocycles Using Pd-PEPPSI-IHeptCl. *Angewandte Chemie, International Edition* 54, (2015): 9502–6. https://doi.org/10.1002/anie.201503941.

Burda, Edyta, Werner Hummel, and Harald. Groeger. Modular Chemoenzymatic One-Pot Syntheses in Aqueous Media: Combination of a Palladium-Catalyzed Cross-Coupling with an Asymmetric Biotransformation. *Angewandte Chemie, International Edition* 47, (2008): 9551–54. https://doi.org/10.1002/anie.200801341.

Clayden, Jonathan, and Ulrich. Hennecke. α-Pyridylation of Chiral Amines via Urea Coupling, Lithiation and Rearrangement. *Organic Letters* 10, (2008): 3567–70. https://doi.org/10.1021/ol801332n.

Esumi, Tomoyuki, Gouki Makado, Haifeng Zhai, Yasuhiro Shimizu, Yasuhide Mitsumoto, and Yoshiyasu. Fukuyama. Efficient Synthesis and Structure-Activity Relationship of Honokiol, a Neurotrophic Biphenyl-Type Neolignan. *Bioorganic & Medicinal Chemistry Letters* 14, (2004): 2621–25. https://doi.org/10.1016/j.bmcl.2004.02.067.

Fernandez-Rodriguez, Manuel A., and John F. Hartwig. A General, Efficient, and Functional-Group-Tolerant Catalyst System for the Palladium-Catalyzed Thioetherification of Aryl Bromides and Iodides. *Journal of Organic Chemistry* 74, (2009): 1663–72. https://doi.org/10.1021/jo802594d.

Goossen, Lukas J., Guojun Deng, and Laura M. Levy. Synthesis of Biaryls via Catalytic Decarboxylative Coupling. *Science (Washington, DC, United States)* 313, (2006): 662–64. https://doi.org/10.1126/science.1128684.

Koch, Karl Heinz, and Klaus. Muellen. Polyarylenes and Poly(Arylenevinylene)s. V. Synthesis of Tetraalkyl-Substituted Oligo(1,4-Naphthylene)s and Cyclization to Soluble Oligo(Peri-Naphthylene)s. *Chemische Berichte* 124, (1991): 2091–2100. https://doi.org/10.1002/cber.19911240935.

Liang, Lan-Chang, Pin-Shu Chien, and Mei-Hui. Huang. Catalytic Suzuki Coupling Reactions by Amido Phosphine Complexes of Palladium. *Organometallics* 24, (2005): 353–57. https://doi.org/10.1021/om0492395.

Liu, Qing-Xiang, Wei Zhang, Xiao-Jun Zhao, Zhi-Xiang Zhao, Meng-Chao Shi, and Xiu-Guang. Wang. NHC PdII Complex Bearing 1,6-Hexylene Linker: Synthesis and Catalytic Activity in the Suzuki-Miyaura and Heck-Mizoroki Reactions. *European Journal of Organic Chemistry* 2013, (2013): 1253–61. https://doi.org/10.1002/ejoc.201200954.

Marziale, Alexander N., Stefan H. Faul, Thomas Reiner, Sven Schneider, and Jorg. Eppinger. Facile Palladium-Catalyzed Suzuki-Miyaura Coupling in Air and Water at Ambient Temperature. *Green Chemistry* 12, (2010): 35–38. https://doi.org/10.1039/B915436A.

Matsuda, Takanori, Masanori Shigeno, and Masahiro. Murakami. Palladium-Catalyzed Sequential Carbon-Carbon Bond Cleavage/Formation Producing Arylated Benzolactones. *Organic Letters* 10, (2008): 5219–21. https://doi.org/10.1021/ol802218a.

Molander, Gary A., and Maria. Ribagorda. Expanding Organoboron Chemistry: Epoxidation of Potassium Organotrifluoroborates. *Journal of the American Chemical Society* 125, (2003): 11148–49. https://doi.org/10.1021/ja0351140.

Pabst, Gunther R., Oliver C. Pfuller, and Jurgen. Sauer. The New and Simple 'LEGO' System: Synthesis and Reactions of Ruthenium(II) Complexes. *Tetrahedron* 55, (1999): 8045–64. https://doi.org/10.1016/S0040-4020(99)00422-6.

Patil, Siddappa A., Chia-Ming Weng, Po-Cheng Huang, and Fung-E. Hong. Convenient and Efficient Suzuki-Miyaura Cross-Coupling Reactions Catalyzed by Palladium Complexes Containing N,N,O-Tridentate Ligands. *Tetrahedron* 65, (2009): 2889–97. https://doi.org/10.1016/j.tet.2009.02.017.

Uno, Brice E., Eric P. Gillis, and Martin D. Burke. Vinyl MIDA Boronate: A Readily Accessible and Highly Versatile Building Block for Small Molecule Synthesis. *Tetrahedron* 65, (2009): 3130–38. https://doi.org/10.1016/j.tet.2008.11.010.

Waybright, Shane M., Kanika McAlpine, Matthew Laskoski, Mark D. Smith, and Uwe H. F. Bunz. Organometallic Dendrimers Based on (Tetraphenylcyclobutadiene)Cyclopentadienylcobalt Modules. *Journal of the American Chemical Society* 124, (2002): 8661–66. https://doi.org/10.1021/ja026462p.

Xiong, Zhengchang, Nengdong Wang, Mingji Dai, Ang Li, Jiahua Chen, and Zhen. Yang. Synthesis of Novel Palladacycles and Their Application in Heck and Suzuki Reactions under Aerobic Conditions. *Organic Letters* 6, (2004): 3337–40. https://doi.org/10.1021/ol048749s.

Zhang, Qingling, Thomas P. Russell, and Todd. Emrick. Synthesis and Characterization of CdSe Nanorods Functionalized with Regioregular Poly(3-Hexylthiophene). *Chemistry of Materials* 19, (2007): 3712–16. https://doi.org/10.1021/cm070603a.

Zhou, Wen-Jun, Ke-Hu Wang, and Jin-Xian. Wang. Pd(PPh3)4-PEG 400 Catalyzed Protocol for the Atom-Efficient Stille Cross-Coupling Reaction of Organotin with Aryl Bromides. *Journal of Organic Chemistry* 74, (2009): 5599–5602. https://doi.org/10.1021/jo9005206.

Hazardous Properties and Cautions: The toxicological and pharmacological properties of this compound are not fully known. For further information see the MSDS on request. **2-Bromo-5-fluoro-4-hydroxypyridine** is manufactured, shipped according to standard practices, and intended for research and development in a laboratory utilizing prudent procedures for handling chemicals of unknown toxicity, under the supervision of persons technically qualified to evaluate potential risks and authorized to enforce appropriate health and safety measures. As with all research chemicals, precautions should be taken to avoid unnecessary exposures or risks.

Warranty and Disclaimer: Frontier Scientific, Inc. warrants the product conforms to the specifications stated herein. In the event of nonconformity, Frontier will replace products or refund purchase price, at its sole option, and Frontier shall not be responsible for any other loss or damage, whether known or foreseeable to Frontier. No other warranties apply, express or implied, including but not limited to warranty of fitness for

any purpose or implied warranty of merchantability. Purchaser is solely responsible for all consequences of its use of the product and Frontier assumes no responsibility therefore,) including success of purchaser's research and development, or health or safety of any uses of the product.