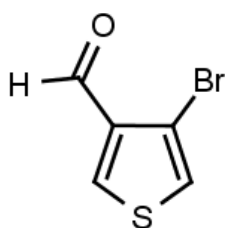




Name 3-Bromo-4-formylthiophene



Catalog #	Formula
B7762	C ₅ H ₃ BrOS
CAS#	Solubility
18791-78-1	Not specified
MDL#	
MFCD01318960	

FIELD OF INTEREST:

Aldehydes undergo a wide variety of reactions arising from polarized carbonyl groups and active α -hydrogen. These properties allow the aldehyde group to undergo subsequent modification through several reactions very useful in organic synthesis. Aldehydes can be reduced to alcohols and hydrocarbons (1), and oxidized to carboxylic acids (1), and also can undergo nucleophilic addition across the carbonyl group (2). Some commonly used nucleophilic addition reactions include, Wittig reaction, Grignard reaction, and reductive amination. In addition, the active α -hydrogen allows subsequent modification through reactions such as aldol condensation, alkylation, and halogenations. Aldehydes can also be very useful in bioconjugate reactions with amine-containing biological molecules through reductive amination (3).

REFERENCES:

- (1) Larrock, R.C. (1999) Comprehensive Organic Transformations: a Guide to Functional Group Preparations, Second Edition, WILEY-VCH Verlag GmbH, Weinheim.
- (2) Smith, M.B. (2013) March's Advanced Organic Chemistry: Reactions, Mechanisms, and Structure, Seventh Edition, WILEY-VCH Verlag GmbH, Weinheim.
- (3) Hermanson, G.T. (2013) Bioconjugate Techniques, Third Edition, Academic Press, Salt Lake City, Utah.

HAZARDOUS PROPERTIES AND CAUTION

The toxicological and pharmacological properties of this compound are not fully known. For further information see the MSDS on request. This item 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.