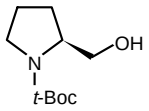
N-Protected Amino Alcohols

N-Protected amino alcohols are versatile building blocks in organic synthesis. A sampling of Aldrich's listings from this important class of compounds is shown below along with some of their applications. For our complete selection of amino alcohols, see the 1997 *Aldrich Chiral Compounds* brochure. You can request your free copy by calling our Technical Services Department at **800-231-8327** or visiting the Aldrich web site at **www.aldrich.sial.com**.

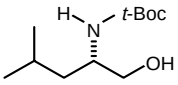


- Building block for novel nicotinic acetylcholine receptor ligands with cognition-enhancing properties.[1]
- Used in the synthesis of chiral β-amino sulfides and β-amino thiols.[2]

(1) Lin, N.-H. et al. *J. Med. Chem.* **1997**, *40*, 385. Elliott, R.L. et al. *Bioorg. Med. Chem. Lett.* **1996**, *6*, 2283. Abreo, M.A. et al. *J. Med. Chem.* **1996**, *39*, 817. (2) Cran, G.A. et al. *Tetrahedron: Asymmetry* **1995**, *6*, 1553.

44,632-7 **(*S*)-(–)-1-(*tert*-Butoxycarbonyl)-2-pyrrolidinemethanol,** 98% **1g; 5g**

NEW!

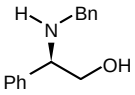


- Precursor to enantiomerically pure α-methyl amines.[1]
- Starting material for the synthesis of enantiopure *homo*-β-amino acids[2] and *N*-protected α-amino aldehydes.[3]
- Used in the total synthesis of the gastroprotective amicoumacin C.[4]

(1) Donner, B.G. *Tetrahedron Lett.* **1995**, *36*, 1223. (2) Caputo, R. et al. *Tetrahedron* **1995**, *51*, 12337. Idem *Tetrahedron Lett.* **1995**, *36*, 167. (3) Soucek, M.; Urban, J. *Collect. Czech. Chem. Commun.* **1995**, *60*, 693. (4) Ward, R.A.; Procter, G. *Tetrahedron* **1995**, *51*, 12301.

44,119-8 *N*-(*tert*-**Butoxycarbonyl)-L-leucinol,** 98% **1g; 5g**

NEW!

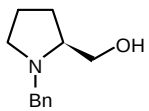


- Used for the asymmetric synthesis of α-amino phosphonic acids.[1]
- Starting material for a practical route to optically pure β-substituted amines.[2]

(1) Maury, C. et al. *J. Org. Chem.* **1996**, *61*, 3687. (2) Micouin, L. et al. *Tetrahedron Lett.* **1994**, *35*, 7223.

45,776-0 **(*R*)-(–)-*N*-Benzyl-2-phenylglycinol,** 98% **1g; 5g**

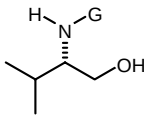
NEW!



- Precursor in the synthesis of proline-derived homochiral amine oxides.[1]
- Starting material for enantiomerically pure 3-hydroxypiperidine, a structural feature present in many natural products.[2]

(1) O'Neil, I.A. et al. *Synlett* **1995**, 617. (2) Cossy, J. et al. *Tetrahedron Lett.* **1995**, *36*, 549.

30,211-2 **(*S*)-(–)-1-Benzyl-2-pyrrolidinemethanol,** 99% **5g; 25g**



G = *t*-Boc, Fmoc

- Starting materials for the synthesis of enantiopure *homo*-β-amino acids.[1]
- Used in the efficient synthesis of enantiopure tetrahydroisoquinolines.[2]
- Intermediates in the one-pot conversion of amino acid carbamates to *N*-derivatized 2-oxazolidinones.[3]

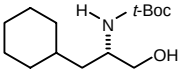
(1) Caputo, R. et al. *Tetrahedron* **1995**, *51*, 12337. Idem *Tetrahedron Lett.* **1995**, *36*, 167. (2) Tietze, L.F.; Burkhardt, O. *Synthesis* **1994**, 1331. (3) Huwe, C.M.; Blechert, S. *Tetrahedron Lett.* **1994**, *35*, 9533.

44,441-3 *N*-(*tert*-**Butoxycarbonyl)-L-valinol,** 98% **1g; 5g**

NEW!

44,567-3 *N*-**(9-Fluorenylmethoxycarbonyl)-L-valinol,** 97% **1g; 5g**

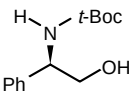
NEW!



- Precursor to (*S*)-*N*-Boc-cyclohexylalaninal.[1]
- This precursor was oxidized to the corresponding α-amino aldehyde in good yield and high optical purity.[2]

(1) Krysan, D.J. et al. *Org. Prep. Proced. Int.* **1993**, *25*, 437. (2) Leanna, M.R. et al. *Tetrahedron Lett.* **1992**, *33*, 5029.

42,169-3 **(*S*)-(–)-2-(*tert*-Butoxycarbonylamino)-3-cyclohexyl-1-propanol,** 90% **1g; 5g**



- Used for the synthesis of homochiral *N*-protected β-amino sulfoxides[1] and α-amino acids.[2]
- Chiral synthon which undergoes heterocyclizations.[3] Precursor to chiral oxazolidinones.[4]

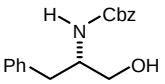
(1) Siedlecka, R.; Skarzewski, J. *Synlett* **1996**, 757. (2) Cox, G.G.; Harwood, L.M. *Tetrahedron: Asymmetry* **1994**, *5*, 1669. (3) Agami, C. et al. *Bull. Soc. Chim. Fr.* **1995**, *132*, 808. (4) Idem *Tetrahedron Lett.* **1993**, *34*, 4509.

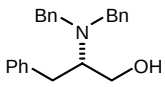
42,981-3 **(*R*)-(–)-*N*-(*tert*-Butoxycarbonyl)-2-phenylglycinol,** 99% (99%ee) **250mg; 1g**

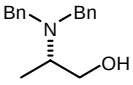
NEW!

42,982-1 **(*S*)-(+)-*N*-(*tert*-Butoxycarbonyl)-2-phenylglycinol,** 99% (99%ee) **250mg; 1g**

NEW!







- Building blocks for the synthesis of HIV protease inhibitors.

Scholz, D. et al. *J. Med. Chem.* **1994**, *37*, 3079. Liu, C. et al. *Org. Process. Res. Dev.* **1997**, *1*, 45. Beaulieu, P.L.; Wernic, D. *J. Org. Chem.* **1996**, *61*, 3635. Lam, P.Y.S. et al. *J. Med. Chem.* **1996**, *39*, 3514. Hodge, C.N. et al. *Chem. Biol.* **1996**, *3*, 301. Pierce, M.E. et al. *J. Org. Chem.* **1996**, *61*, 444.

42,172-3 **(*S*)-(–)-2-(Carbobenzyloxyamino)-3-phenyl-1-propanol,** 97% **1g ; 5g**

45,993-3 **(*R*)-(+)-2-(Carbobenzyloxyamino)-3-phenyl-1-propanol,** 97% **1g; 5g**

NEW!

42,173-1 **(*S*)-(+)-2-(Dibenzylamino)-3-phenyl-1-propanol,** 99% **1g; 5g**

34,960-7 **(*S*)-(+)-2-(Dibenzylamino)-1-propanol,** 99% **1g; 5g**

ALDRICH® *chemists helping chemists in research & industry*

P.O. Box 355, Milwaukee, WI 53201 USA **Telephone** 414-273-3850 • 800-558-9160 **Fax** 414-273-4979 • 800-962-9591 **Web Site** www.sial.com/aldrich