

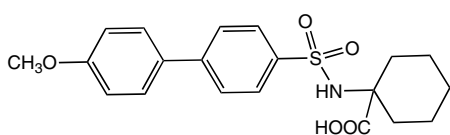
N-Arenesulfonyl Amino Acids

Sulfonamides are one of the most stable nitrogen protective groups, and a variety of these arenesulfonyl protecting groups are used in organic synthesis^[1]. Traditionally, the tosyl group has been used for the protection of N_α amino function of amino acids in peptide synthesis^[2]. At the same time, aryl sulfonyl groups are a major structural feature of a large number of bioactive compounds. Several groups of drugs are based on sulfonamides.

N-Sulfonyl amino acids are useful reagents for introducing the sulfonamide group in normal and combinatorial organic synthesis, especially in drug design. They are potent inhibitors of a number of enzymes, including HIV protease for the treatment of HIV^[3], lens aldose reductase (cataract and retinopathy applications)^[4], procollagen C-proteinase (treatment of inflammatory and fibrotic conditions)^[5], NS3 protease of hepatitis C virus (antiviral activity)^[6], etc.

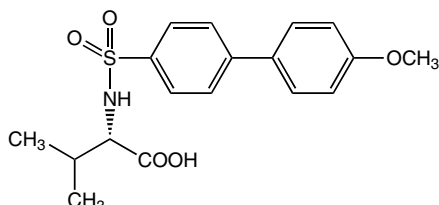
Of special interest are sulfonamides containing bulky bicyclic aryl fragments (biphenyls and phenoxyphenyls). Compounds of this class have been widely used in the design of aggrecanase-1 inhibitors (treatment of osteoarthritis)^[7], and a number of matrix metalloproteinase inhibitors (treatment of cancer, rheumatic and cardiovascular diseases)^[8-10].

An extensive range of N-sulfonyl amino acids offered by Alfa Aesar is listed below.



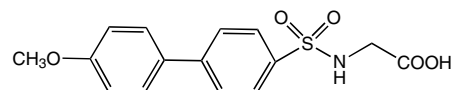
H32698

1-(4'-Methoxy-4-biphenylsulfonylamino)
cyclohexanecarboxylic acid, 96%
[885269-48-7]



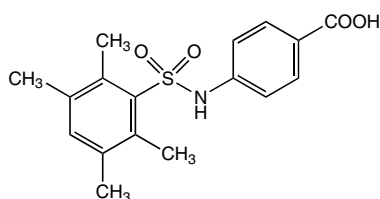
H32521

N-(4'-Methoxy-4-biphenylsulfonyl)valine



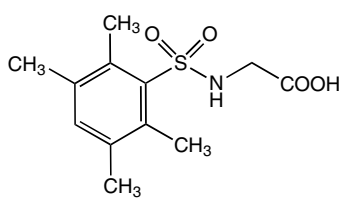
H32299

N-(4'-Methoxy-4-biphenylsulfonyl)glycine,
96%
[885269-46-5]



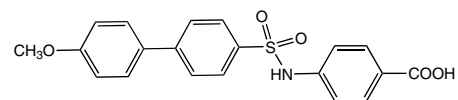
H31800

4-(2,3,5,6-Tetramethylphenylsulfonylamino)
benzoic acid, 97%
[730249-87-3]



H32740

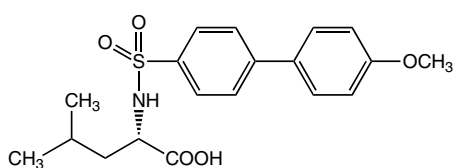
N-(2,3,5,6-Tetramethylphenylsulfonyl)glycine,
96%
[379250-94-9]



H32828

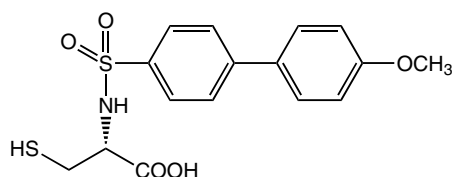
4-(4'-Methoxy-4-biphenylsulfonylamino)
benzoic acid, 96%
[885269-42-1]

N-Arenesulfonyl Amino Acids



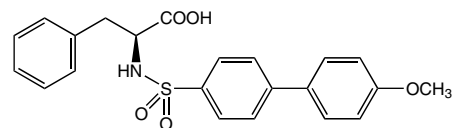
H32750

N-(4'-Methoxy-4-biphenylsulfonyl)leucine, 96%



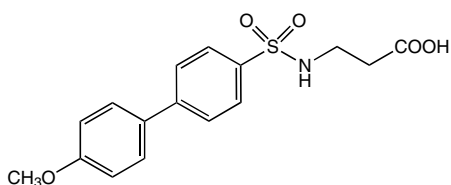
H32855

N-(4'-Methoxy-4-biphenylsulfonyl)-S-methylhomocysteine, 96%



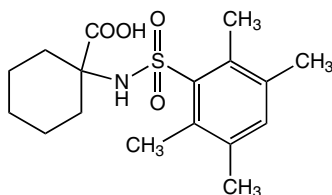
H32511

N-(4'-Methoxy-4-biphenylsulfonyl)phenylalanine, 96%



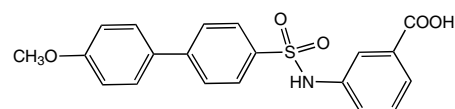
H32459

N-(4'-Methoxy-4-biphenylsulfonyl)beta-alanine, 96%
[885269-51-2]



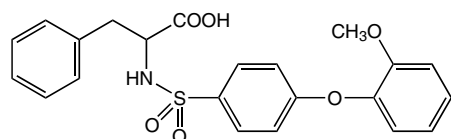
H31898

1-(2,3,5,6-Tetramethylphenylsulfonylamino)cyclohexanecarboxylic acid, 95%
[885269-54-5]



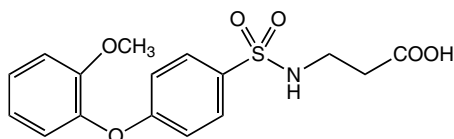
H32583

3-[4-(4-Methoxyphenyl)phenylsulfonylamido]benzoic acid
[885269-91-0]



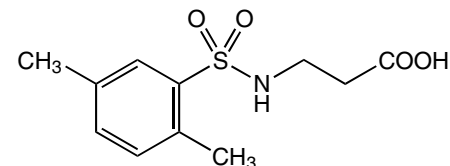
H34314

N-[4-(2-Methoxyphenoxy)phenylsulfonyl]phenylalanine, 96%
[1008961-78-1]



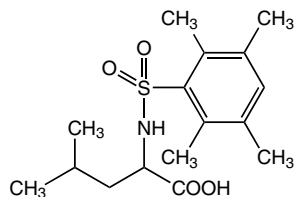
H34361

N-[4-(2-Methoxyphenoxy)phenylsulfonyl]beta-alanine, 96%
[606944-94-9]



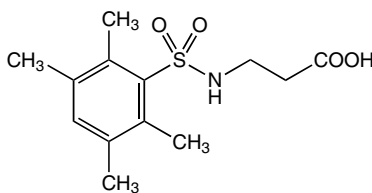
H33825

N-(2,5-Dimethylphenylsulfonyl)beta-alanine, 96%
[568566-41-6]



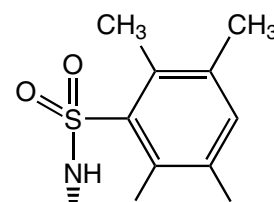
H33889

N-(2,3,5,6-Tetramethylphenylsulfonyl)leucine, 96%



H33119

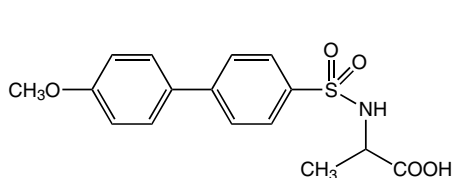
N-(2,3,5,6-Tetramethylphenylsulfonyl)beta-alanine, 96%
[453581-60-7]



H32909

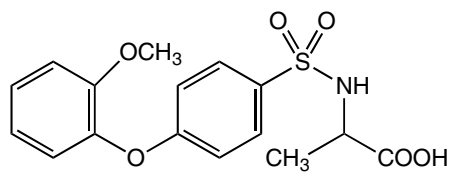
N-(2,3,5,6-Tetramethylphenylsulfonyl)valine monohydrate, 96%
[1009595-18-9]

N-Arenesulfonyl Amino Acids



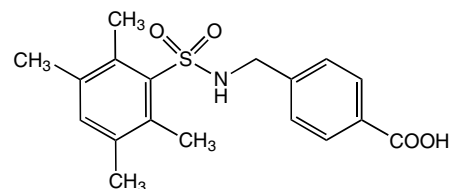
H32312

N-(4'-Methoxy-4-biphenylsulfonyl)alanine,
96%



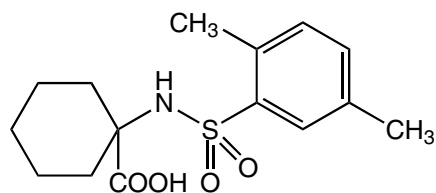
H34230

N-[4-(2-Methoxyphenoxy)phenylsulfonyl]
alanine, 96%
[1008052-20-7]



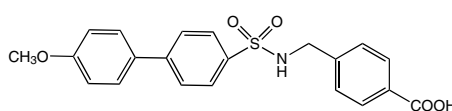
H31525

4-(2,3,5,6-Tetramethylphenylsulfonylamino-
methyl)benzoic acid, 96%
[690646-18-5]



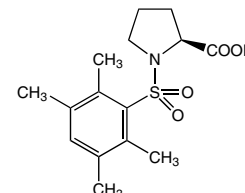
H33715

1-(2,5-Dimethylphenylsulfonylamino)-
cyclohexanecarboxylic acid, 96%
[690646-16-3]



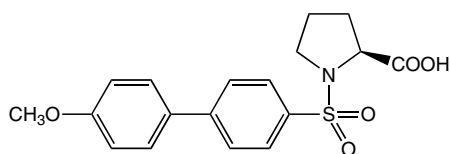
H32286

4-(4'-Methoxy-4-biphenylsulfonylamino-
methyl)benzoic acid, 96%
[885269-44-3]



H33819

1-(2,3,5,6-Tetramethylphenylsulfonyl)
proline, 96%
[1009282-06-7]



H32890

1-(4'-Methoxy-4-biphenylsulfonyl)proline,
96%

¹Greene T.W., Wuts P.G.M. *Protective groups in organic synthesis*, 3rd Ed. John Wiley & Sons, N.Y., 1998, p. 603-616.

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⁴DeRuiter J., Borne R.F., Mayfield C.A. N- and 2-substituted N-(phenylsulfonyl)glycines as inhibitors of rat lens aldose reductase. *J. Med. Chem.* 1989, V. 32, p. 145-151.

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⁹Whittaker M., Ayscough A. Matrix metalloproteinases and their inhibitors – current status and future challenges. *Cell transmissions* 2001, V. 17, p. 3-14.

¹⁰Fisher J.F., Mobashery S. Recent advances in MMP inhibitor design. *Cancer Metastasis Rev.* 2006, V. 25, p. 115-136.