ABSTRACT

In the presented study, a series of sulfamoyl derivatives, 3a-l, of 1-amino-2-phenylethane (1) have been synthesized in good yields by its reaction with different aryl sulfonyl chlorides, 2a-l, in the presence of aqueous Na₂CO₃ solution under definite pH control. These synthesized derivatives were further characterized by IR, ¹H-NMR and EIMS for structure elucidation. Finally the screening against acetyl cholinesterase (AChE), butyryl cholinesterase (BChE) and lipoxygenase (LOX) rendered these molecules as moderate to good inhibitors of cholinesterase enzymes, AChE and BChE, relative to eserine, the reference standard.

Overall scheme of synthesized compounds

$$NH_2$$
 + NH_2 + N

Compd.	R	Compd.	R	Compd.	R
3 a	H ₃ C 4' 2'	3e	O 6 4 2 H ₃ C	3i	6 Cl
3b	H ₃ C N H 4' 2'	3f	H ₃ C C 4 2 1 CH ₃	. 3j	7 9 1'
3e	Cl 6 2 Cl	3g	Br 4 2	3k	CH ₃ 6' 2' CH ₃
3d	Cl 4 2	3h	O ₂ N NO ₂	31	H ₃ CO 4' 2'