

A safe syringe comprises: a barrel (1) having a barrel body (11), an accommodating cavity (12), a base mounting hole (13), and a base engaging recess (14); a needle base (20) having a body (21) mounted to the base mounting hole (13) of the barrel (1), a needle hole (22), a hook rod (24), a linked deformation portion (25) connected to the hook rod (24), and a barrel engagement portion (26) connected to and driven by the linked deformation portion (25) and engageable to the base engaging recess (14) to be fixed; and a rod plug (3) having a rod body (31) and a hook insertion hole (41) capable of being insertion connected to the hook rod (24) of the needle base (20) and compressing the linked deformation portion (25) to create elastic deformation, such that the barrel engagement portion (26) of the needle base (20) is neither engaged with nor fixed by the base engaging recess (14). The hook insertion hole (41) can engage with and hook the hook rod (24) of the needle base (20) to move the needle base (20). In this way, the safe syringe can securely position the needle base (20), and facilitate quick retraction of the needle base (20), thus effectively preventing a residue of a liquid drug.