A method for controlling uplink IP packet filtering in a mobile terminal in a 3GPP Evolved Packet System (EPS) is provided, including an information receiving operation of receiving IP address information allocated to user equipment, and filtering information required for delivering an uplink IP packet received from the user equipment; and a filtering operation for determining which packet data network and a bearer the IP packet is delivered to, based on the IP address information and the filtering information. In a 3GPP evolved packet system supporting a default bearer function, a packet data network to which an uplink IP packet is delivered and a bearer identifier can be efficiently determined when the user equipment simultaneously accesses one or more packet data networks and is allocated several IP addresses, resulting in effective uplink packet filtering.