

ABSTRACT

An aluminum-manganese composite nanocrystal, and a preparation method therefor and the use thereof. The method for preparing the aluminum-manganese composite nanocrystal comprises: step 1, mixing an aluminum salt solution, a manganese salt solution and an anionic adjuvant solution to obtain a mixture, and adjusting the pH value of the mixture to 5.5-8.5; and step 2, heating the mixture for a reaction, and washing the obtained solid reactant to obtain the aluminum-manganese composite nanocrystal. According to the aluminum-manganese composite nanocrystal prepared using the preparation method and the use thereof in the preparation of a vaccine adjuvant, a pharmaceutical composition, a drug delivery carrier or an immunogenic composition, the technical problem that an existing aluminum adjuvant cannot activate humoral immunity and cell immunity at the same time can be effectively solved.