ABSTRACT

TRANSMEMBRANE DOMAIN DERIVED FROM HUMAN LRRC24 PROTEIN

The present invention relates to a transmembrane domain derived from human LRRC24 protein. More specifically, the present invention relates to a transmembrane domain derived from the human LRRC24 protein (LRRC24P transmembrane domain) or a cell-penetrating peptide, and an intracellular delivery system comprising same. The transmembrane domain derived from the human LRRC24 protein of the present invention can be used to deliver cargo materials such as compounds, biomolecules, and various polymer materials into cells. Since the LRRC24P transmembrane domain of the present invention exhibits higher cell penetration efficiency compared to conventional cell-penetrating peptides and is derived from human proteins, thus avoiding side effects and immune responses caused by peptides derived from foreign proteins, it can be usefully used as an effective intracellular delivery method for compounds, biomolecules, and various polymer materials applied to the human body.

Figure 6