

TARGETED PROTEIN DEGRADATION SYSTEM AND USE THEREOF

ABSTRACT

5 An endoplasmic reticulum-based chimeric protein construct for targeted protein degradation and the use thereof, wherein the chimeric protein construct is used for treating cancers, viral infection diseases, autoimmune diseases, neurodegenerative diseases, etc. The chimeric protein construct includes a protein binding domain based on an endoplasmic reticulum-associated degradation
10 mechanism and a targeting domain. The protein binding domain of the chimeric protein construct based on the ERAD mechanism can be the transmembrane domain of the endoplasmic reticulum resident protein of a virus or a functional variant thereof and an endoplasmic reticulum resident domain or a functional variant thereof. The targeting domain of the chimeric protein construct can target
15 any target proteins of interest, and can be the natural ligand of the target protein, an antibody that specifically recognizes the target protein, or an antigen-binding fragment thereof. The targeting domain of the chimeric protein construct can also be an antigen that can be specifically recognized by an antibody.

Figure 1 accompanies.