

ABSTRACT

The present disclosure pertains to the fields of biology and pharmaceuticals and relates to a fusion protein comprising a TGF- β RII extracellular region fragment, a pharmaceutical composition thereof, and use thereof. Specifically, the fusion protein of the present disclosure comprises: a first protein functional region targeting an immune checkpoint and a second protein functional region with TGF- β binding activity, wherein the second protein functional region is a variant of a TGF- β RII extracellular region fragment, and the variant of the TGF- β RII extracellular region fragment is: the first serine at the N-terminus of the TGF- β RII extracellular region fragment is replaced with alanine, glycine, or threonine, and/or a fragment comprising the amino acid sequence set forth in SEQ ID NO: 59 is deleted from the TGF- β RII extracellular region fragment. The fusion protein of the present disclosure can simultaneously inhibit TIGIT and reduce TGF- β levels, demonstrating good potential for preparing anti-tumor drugs.

FIG. 45