Dual Modality Radionuclide-Antibody Drug Conjugate for Advanced Prostate Cancer and Multiple Myeloma

Tech ID: 34381 / UC Case 2025-122-0

TECHNOLOGY DESCRIPTION

Our innovative therapeutic agent combines cutting-edge drug conjugation technologies to address critical gaps in cancer treatment. This dual-modality approach integrates a potent cytotoxic drug with a targeted radionuclide, all delivered via a CD46-targeting antibody. CD46 is highly expressed in advanced prostate cancer and multiple myeloma, enabling precise tumor targeting. By combining the powerful mechanisms of targeted chemotherapy and localized radiation therapy, this novel R-ADC (radioimmunoconjugate-antibody drug conjugate) is designed to enhance treatment efficacy while minimizing systemic toxicity.

Competitive Advantages:

- **Precision Targeting:** CD46-specific binding ensures highly localized delivery of both cytotoxic and radiotherapeutic agents, reducing off-target effects and improving safety.
- **Synergistic Cytotoxicity:** The dual-modality mechanism integrates targeted chemotherapy with localized radiation for enhanced tumor cell killing.
- **Therapeutic Versatility:** Applicable across multiple CD46-expressing cancers, including advanced prostate cancer and multiple myeloma.
- **Treatment Monitoring:** The radionuclide component enables real-time imaging, offering clinicians dynamic insight into therapeutic response.
- **Minimized Toxicity:** Preclinical studies demonstrate excellent stability, specificity, and low systemic toxicity compared to standard therapies.

STAGE OF DEVELOPMENT

Our R-ADC is currently in the preclinical phase, with compelling data validating its therapeutic potential. Studies in prostate cancer and multiple myeloma models have demonstrated significant tumor suppression, extended survival rates, and superior safety profiles.

RELATED MATERIALS

PATENT STATUS

Patent Pending

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OTHER INFORMATION

KEYWORDS

Radionuclide, Antibody Drug Conjugate, Prostate Cancer, Multiple Myeloma, CD46

CATEGORIZED AS

- Medical
  - Disease: Cancer
  - Therapeutics

RELATED CASES

2025-122-0

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