

Development of a Next-Generation Trop2-Targeted Aptamer–Drug Conjugate (ApDC) for Pancreatic Cancer and Solid Tumors

APTAMER SCIENCES, Inc.



ONCOLOGY	Lead
Product Type	Gene & Nucleic acids
Indication	Pancreatic cancer (primary indication), Trop2-positive solid tumors
Target	Trophoblast cell surface antigen 2 (Trop2)
MoA(Mechanism of Action)	• Trop2-targeting aptamer selectively binds to and internalizes into Trop2-positive tumor cells, delivering cytotoxic payloads to induce tumor cell death. • The released payload diffuses into adjacent tumor cells, inducing additional antitumor activity through a bystander effect.
Competitiveness	• Small-sized aptamer-based delivery platform enabling superior tumor penetration within dense TMEs compared with conventional ADCs • Enhanced plasma and conjugate stability through chemically modified nucleic acids and a branched linker strategy • Selective tumor targeting with reduced off-target toxicity • Improved tumor retention and antitumor efficacy demonstrated in orthotopic pancreatic cancer models • Rapid systemic clearance with enhanced tumor-selective distribution, potentially reducing systemic toxicity • Expandable ApDC platform applicable to multiple Trop2-positive solid tumors
Development Stage	Lead
Route of Administration	Intravenous (IV) injection

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