Discover CAR T BCMA binders

Learn more about the 3 types of specifically engineered binding domains below.

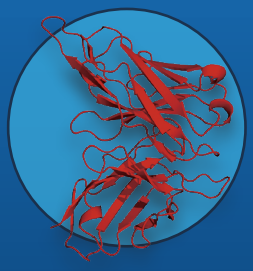

Image generated based on publicly available protein sequence using AlphaFold program.

scFv

SINGLE-CHAIN VARIABLE FRAGMENT

SIZE
28 kDa[1]

SOURCE
Murine[2]

STRUCTURE
Variable light chain and variable heavy chain of an antibody connected by a flexible linker peptide[3]

CAR POSITIVITY
Median, 47%; range, 26%-79%[4,a]

TRIAL STATUS
Phase 3[5]

Adapted from Buonato et al 2022.[6]

D-Domain

SIZE
8 kDa[6]

SOURCE
Fully synthetic[6]

STRUCTURE
Triple-helical bundle held together with hydrophobic core[6,7]

CAR POSITIVITY
Median, 82%; range, 72%-88%[6,8,b]

TRIAL STATUS
Phase 2[9]

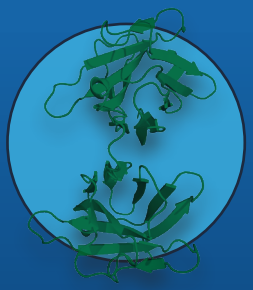

Image generated based on publicly available protein sequence using AlphaFold program.

VHH

SINGLE-VARIABLE DOMAIN ON A HEAVY CHAIN

SIZE
30-35 kDa[10,c]

SOURCE
Bivalent camelid[11]

STRUCTURE
Variable domains of heavy-chain antibodies[11]

CAR POSITIVITY
Median, 16%; range, 6%-28%[12,d]

TRIAL STATUS
Phase 4[13]

The safety and efficacy of this technology have not been established.
This investigational technology has not been approved, cleared, or licensed.

[a] Phase 1 multicenter dose-escalation trial of an anti-BCMA CAR T in patients with relapsed or refractory multiple myeloma (n=21).[4]
[b] Preclinical study of a BCMA-directed CAR T (n=9).[6,8]
[c] Approximate size of 2 identical VHH domains connected by a linker peptide.[10]
[d] Translational data from a Phase 1b cohort of an ongoing Phase 1b/2 study of a BCMA-targeted CAR T in patients with relapsed or refractory multiple myeloma (n=25).[12]

Abbreviations: BCMA, B-cell maturation antigen; CAR T, chimeric antigen receptor T cell.

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