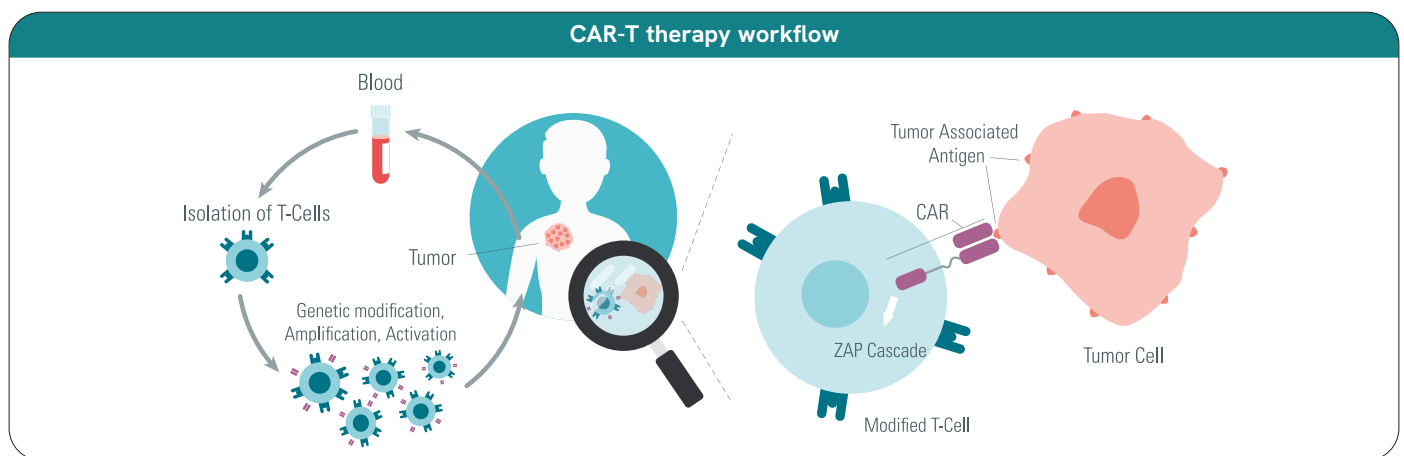




# Solutions to advance your CAR T-cell research.

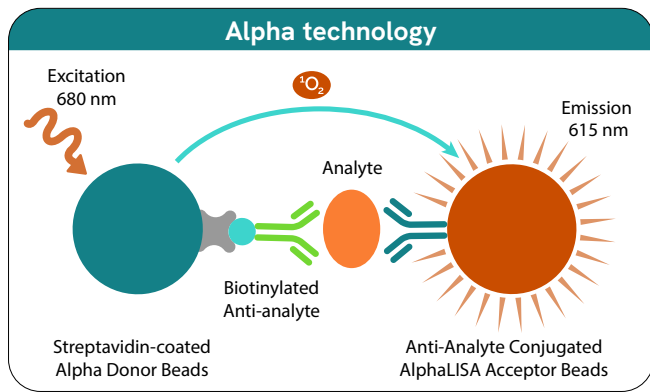
Chimeric antigen receptor (CAR) T-cell therapy has transformed the field of immuno-oncology providing a novel approach to treating certain blood cancers by genetically reprogramming a patient's own immune cells to target and destroy cancerous cells. As innovation progresses with the design of next generation chimeric receptors and a better understanding of the tumor microenvironment, CAR-T therapy has the potential to also revolutionize therapies for treating solid tumors.

Whether you are looking to characterize scFv binding capabilities of your chimeric receptor, assess vector transduction efficiency of your CAR construct, measure T-cell proliferation and toxicity, or assess effector cell function of your CAR-T therapy, Revvity has a solution to fit your needs.

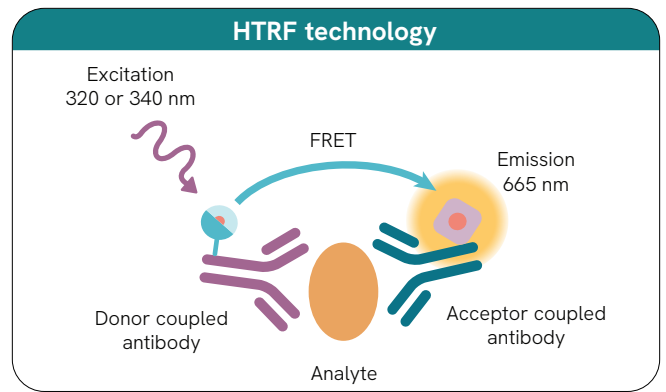


Advance your CAR T-cell therapy research with Revvity's broad offering of assay technologies:

- Homogeneous immunoassay kits for cell-based detection of cytokines, biomarkers, and cell signaling proteins providing fast and accurate results utilizing Alpha and HTRF<sup>®</sup> assay platforms
- Bright and sensitive luciferin-based reporter gene and cell quantification assays
- Ready-to use cytotoxicity and cell proliferation assays utilizing our stable and robust time-resolved fluorescence DELFIA assay platform



Alpha is a versatile, bead-based platform that enables you to assay the most complex samples in one well and with no wash steps.



HTRF is a fast, sensitive, homogeneous, and ready to use assay platform with no wash steps.

## Evaluate CAR T-cell functionality and cell signaling

Table 1. Cytokine detection assays.

	AlphaLISA	HTRF
CCL2 (MCP-1)*	AL244C	62HCCL2PEG
CCL3 (MIP-1a)	AL257C	62HCCL2PEG
CCL5 (RANTES)*	AL289C	62HCCL5PEG
IL-1a*	AL238C	62HIL1APEG
IL-1b*	AL3133C	62HIL1BPEG
IL-2*	AL221C	62HIL02PEG
IL-4*	AL266C	62HIL04PEG
IL-5*	AL267C	62HIL05PEG
IL-6*	AL223C	62HIL06PEG
IL-8	AL224C	62HIL08PEG
IL-10*	AL218C	62HIL10PEG
IL-13*	AL240C	62HIL13PEG
IL-17*	AL219C	62HIL17PEG
IL-17F	AL391C	-
IL-18*	AL3137	62HIL18PEG
IL-22	AL320C	62HIL22PEG
IFN $\gamma$ *	AL217C	62HIFNGPEG
TNF- $\alpha$ *	AL208C	62HTNFAPEG
GM-CSF	AL216C	62HGMCSFPEG

\* Also available for mouse

Table 2. T-cell receptor cell signaling assays.

	AlphaLISA	HTRF
c-Jun phospho S63	-	61P14KAE
c-Jun phospho S73	TGRCJ2S500	-
CREB phospho S133*	ALSU-PCREB-A500	64CREPEG
ERK1/2 phospho T202/Y204*	ALSU-PERK-A500	64AERPEG
H2AX	ALSU-TH2X-A500	64H2AXTPEG
JNK phospho T183/S185*	ALSU-PJNK-A500	64JNKPEG
mTOR phospho S2448	ALSU-PMTOR-C500	64TORPEG
mTOR phospho S2481	ALSU-PMTOR-B500	-
NF-kB p65 phospho S536*	ALSU-PNFKB-A500	64NFBPEG
SHP1 phospho Y536*	ALSU-PSHP1-A500	-
SHP1 phospho Y564*	ALSU-PSHP1-B500	64SH1PEG
SHP2 phospho Y542*	ALSU-PSHP2-A500	64SH2PEG
SHP2 phospho Y580*	ALSU-PSHP2-B500	-
SLP76 phospho Y145	ALSU-PSLP-A500	63ADK076PEG
SLP76 phospho S376*	ALSU-PSLP-A500	63ADK076PEG
ZAP70 phospho Y319*	ALSU-PZAP-A500	-

\* Total kits also available

Table 3. Cell-death pathway associated biomarker assays.

	AlphaLISA	HTRF
Cleaved PARP	-	64PARPEG
Granzyme B	AL3170C	62HGRZBPEG
H2AX	ALSU-TH2X-A500	64H2AXTPEG
H2AX phospho S139	ALSU-PH2X-A500	64H2XPEG
Perforin-1	-	63ADK100PEG

Table 4. Immune checkpoint detection assays.

	AlphaLISA
BTLA4 (CD272)	AL3062C
CD276	AL3060C
CD28	AL3044C
CD40	AL3102C
CD70	AL3103C
CD80	AL3055C
CD86	AL3045C
CTLA-4	AL3050C
Galectin-9	AL3051C
PD-1	AL343C
PD-L1	AL355C
TIM-3	AL3052C
VISTA	AL3059C

\* Also available for mouse

Table 5. Immune checkpoint inhibitor binding assays.

	AlphaLISA	HTRF
CD28/CD86	AL3131C	-
CD47/SIRP $\alpha$	-	64SIRPPEG
CTLA4/CD80	AL3046C	64ICP04PEG
CTLA4/CD86	AL3047C	64ICP05PEG
LAG3/MHCII	AL3066C	64ICP03PEG
PD1/PD-L1*	AL356C	64PD1PEG
PD1/PD-L2	AL3128C	-

\* Also available for mouse, cynomolgus

## Characterize scFv hybridoma binding

Table 8. Epitope tag detection reagents.

	AlphaLISA		HTRF			
	Donor beads	Acceptor beads	Europium donor	Terbium donor	Xl665 acceptor	d2 acceptor
Anti-6HIS	-	AL178C	61HISKLA	61HISTLA	61HISXLA	61HISDLA
Anti-6HIS	-	-	61HI2KLA	61HI2TLA	-	-
Anti-c-myc	-	AL111C	61MYCKLA	61MYCTAA	61MYCXLA	61MYCDAA
Anti-DIG	AS108D	AL113C	-	-	-	-
Anti-DNP	-	AL173C	61DNPKLA	-	61DNPXLA	-
Anti-FLAG®	AS103D	AL112C	61FG2KLA	61FG2TLA	61FG2XLA	61FG2DLA
Anti-GST	-	AL110C	61GSTKLA	61GSTTLA	61GSTXLA	61GSTDLA
Anti-HA	-	AL170C	610HAKLA	610HATAA	610HAXLA	610HADAA
Anti-MBP	-	AL134C	61MBPKAA	61MBPTAA	-	61MBPDAA
Anti-VHH	-	-	610VHHKLA	610VHHTLA	-	-
Streptavidin	6760002D	AL125C	610SAKLA	610SATLA	610SAXLA	610SADLA
Streptavidin Xlent!	-	-	-	-	611SAXLB	-

**Our R&D scientists are developing new assays everyday!**

Visit Our Website to Explore Our Latest Product Releases

## Measure T-cell proliferation and toxicity

Table 6a. Luminescence assays for cell viability.

	Part number
ATPlite 1step	6016736*
ATPlite	6016943**

\* Exists in 10/100/1,000 mL; \*\*Exists in 300/1,000/5,000/10,000 tests

Table 6b. DELFIA assays for cell viability.

	Part number
DELFLIA cell proliferation kit	AD0200
DELFLIA cytotoxicity kit	AD0116

## Assess CAR transduction efficiency

Table 7a. Luminescence reporter gene assays.

	Part number
britelite Plus*	6066766*
neolite*	6016716*
steadylite Plus*	6066756*

\* Exists in 10/100/1,000 mL

Table 7b. Lentiviral transduction.

	Part number
AlphaLISA HIV p24 Detection Assay	AL291C

## Characterize scFv hybridoma binding - continued.

Table 9. Antibody capture detection reagents.

	AlphaLISA		HTRF			
	Donor beads	Acceptor beads	Europium donor	Terbium donor	XL665 acceptor	d2 acceptor
Anti-Goat IgG	-	AL107C	-	-	-	-
Anti-Human (Fab) IgG	-	AL177C	-	-	-	-
Anti-Human IgE	-	AL176C	-	-	-	-
Anti-Human IgG	AS114	AL103C	61HFCCKLA	61HFCTAA	61HFCXLA	61HFCDA A
Anti-Human IgG1	-	AL153C	-	-	-	-
Anti-Human IgG2	-	AL154C	-	-	-	-
Anti-Human IgG4	-	AL156C	-	-	-	-
Anti-Mouse IgG	AS104D	AL105C	61PAMKLA	61PAMTAA	61PAMXLA	61PAMDAA
Anti-Mouse IgG1	-	AL164C	-	-	-	-
Anti-Mouse IgG2a	-	AL158C	-	-	-	-
Anti-Mouse IgG2b	-	AL159C	-	-	-	-
Anti-Mouse IgG3	-	AL160C	-	-	-	-
Anti-Mouse IgM	-	AL130C	-	-	-	-
Anti-Rabbit IgG	AS105D	AL104C	61PARKLA	61PARTAA	61PARXLA	61PARDAA
Protein A	AS102D	AL101C	61PRAKLA	-	61PRAXLA	-

Table 10. Hybridoma binding kits.

	HTRF
Hybridoma 6HIS Binding Kit	64HYHISPEG
Hybridoma GST Binding Kit	64HYGSTPEG

## Custom labeling and custom assay development services

Don't see the assay you need listed here? Revvity has partnered with industry and academia professionals to develop custom solutions to dramatically shorten the drug development process using our powerful, accurate HTRF, DELFIA® and AlphaLISA® technologies.

An experienced Project Manager will evaluate your project's chance of success, then work with you to create a customized assay for the target you need to advance your CAR-T research.

