



BISPECIFIC T CELL ENGAGER



Efficient T cell activation and expansion

- ❖ Recombinant bispecific antibody (bsAb) CD3-CD28 for T cell expansion
- ❖ Innovative structure for better solubility and increased serum half-life
- ❖ No need for expensive media, magnetic beads, or feeder cells

T cell-based immunotherapy is an effective strategy to treat a wide range of cancers. Such therapies rely on the *ex-vivo* activation and expansion of naturally occurring tumor-specific T cells that are otherwise only retrieved in small numbers from the patient's blood or tissues. A promising approach for the activation of T cells is the use of bispecific antibodies.

InvivoGen offers a bispecific antibody that binds to both CD3 and CD28 at the cell surface of human T cells. It is designed for the *in vitro* activation and expansion of enriched T cell populations or resting T cells from PBMCs.

Key features:

Strong *in vitro* T cell activation

Compatible with transfection and transduction methods

Simple use and cost-effective

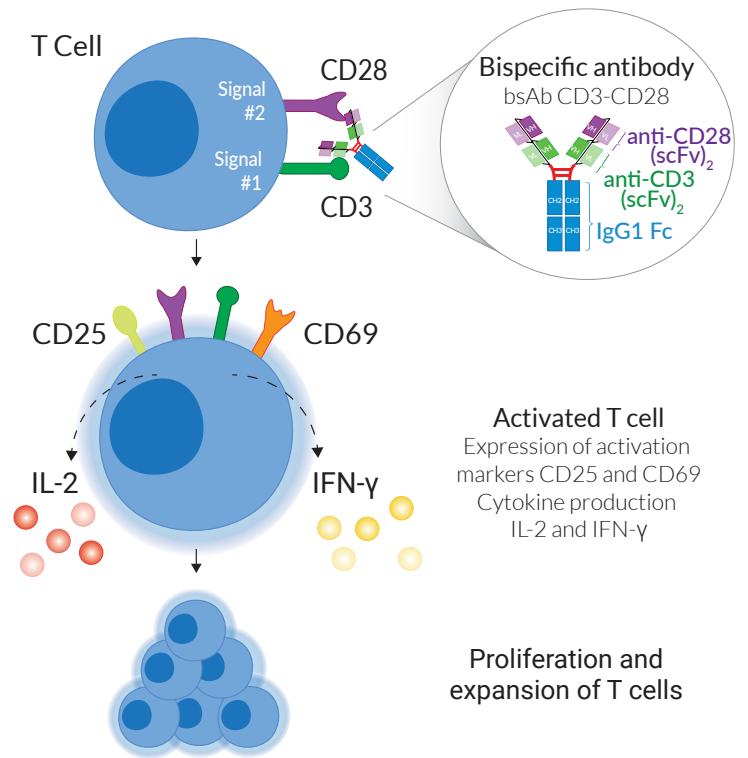
No expensive material necessary

OPTIMIZED ANTIBODY FOR T CELL EXPANSION

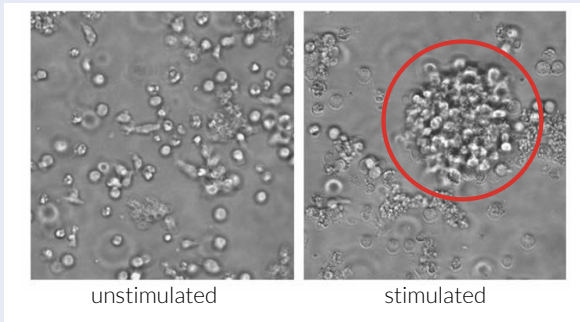
Bispecific antibodies bring together specificities of two antibodies that are able to bind simultaneously to two separate unique antigens or epitopes. The most widely used application for this tool is in the study and development of cancer immunotherapies that directly target cancer cells.

• bsAb CD3-CD28 **NEW**

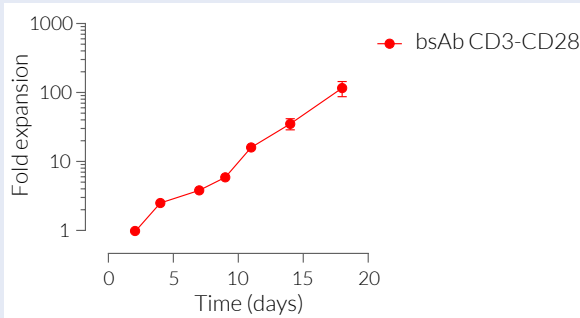
InvivoGen has developed a T cell activating and expanding CD3-CD28 bispecific antibody (bsAb), targeting the human CD3 and CD28 receptors. It is a fusion protein dimer comprising tandem single-chain variable fragments (scFv)₂ and an IgG1 Fc fragment. InvivoGen's bsAb CD3-CD28 mimics the natural cross-linking of these molecules by APCs *in vivo* and delivers the necessary signal 1 and signal 2 to the T cells for their activation and expansion.



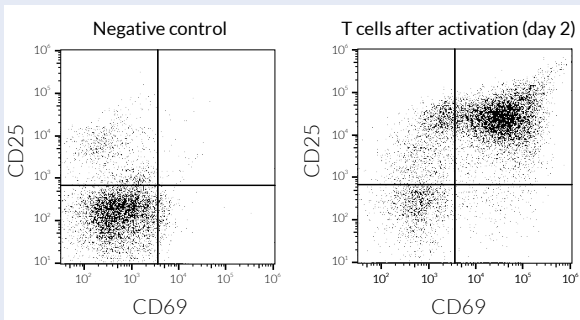
Morphology



T cell fold expansion



CD25 & CD69 expression



Key features

- ❖ Simple, versatile, and cost-effective
- ❖ Increased solubility and serum half-life
- ❖ No need of expensive material or extra steps

Applications

- ❖ Expansion of enriched or PBMC-derived T cells
- ❖ Cancer immunotherapy studies
- ❖ CAR T cell development

PRODUCT	CAT. CODE
bsAb CD3-CD28	bsab-tex-1
RELATED PRODUCTS (AVAILABLE SOON)	
Recombinant human IL-2, CHO-derived	rcyc-hil2
Recombinant human IL-7, CHO-derived	rcyc-hil7
Recombinant human IL-15, CHO-derived	rcyc-hil15