

World's First Zero-Off-Target Base-edited NK Cell Therapy Receives IND Approval in Both China and the U.S.

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[Therapeutics](#) has announced that its NK510 cell injection, the world's first zero-off-target base-edited NK cell product, has received IND approvals from both the U.S. FDA and China's NMPA for clinical trials on advanced solid tumors. This dual approval marks a significant milestone in cancer immunotherapy, leveraging Base Therapeutics' pioneering base-editing technology.



logo of Base Therapeutics

NK cells hold great promise for cancer therapy owing to their innate logic gating performance to recognize cancer cells. However, NK cell-based therapeutics face significant challenges: limited expansion, genetic modification resistance, and immune escape of cancer cells. Base Therapeutics utilizes the proprietary AccuBase® base-editing technology to precisely modify genes in human primary NK cells. With an editing efficiency of over 90%, this technology offers a safer and more effective approach to NK cell-based therapies. NK510s are specifically engineered to reprogram their logic gating performance, which enables them to respond to tumor-associated antigens (TAA) and resist immune checkpoint signals. Preclinical and clinical studies have shown robust anti-tumor activity against solid tumors.

Additionally, Base Therapeutics has optimized the ex vivo expansion process for NK510. Through meticulous refining of dozens of processes and hundreds of parameters, the NK510s have been successfully expanded up to millions of times in Base Therapeutics' GMP-compliant facilities, overcoming global challenges such as low expansion rates and low transfection efficiency in allogeneic NK cell products.

AccuBase® Base Editing Technology

AccuBase® is a zero-off-target base editing technology developed by Base Therapeutics. Unlike

traditional CRISPR technologies, AccuBase® directly modifies target DNA bases without inducing double-strand breaks, offering a safer, more precise alternative for gene editing. With proven applications across various cell types and species, AccuBase® has garnered international recognition, including non-exclusive licensing to a leading CAR-T cell therapy company.

Advantages of AccuBase®:

- * Zero-Off-Target achieved by precise design
- * Clinical validated performance
- * High efficiency without compromising cell viability, even in multiplex gene editing
- * The world's only GMP grade base editor with superior stability in high quality and quantity
- * The world's only base editor that could be delivered in the form of RNP
- * Global FTO

About Base Therapeutics

Founded in 2021, Base Therapeutics is a leading innovator in cell therapy and in vivo gene editing therapies. The company has developed multiple base-edited therapies, including NK510 and several in vivo gene editing projects. By leveraging the proprietary base editing technology, Base Therapeutics aims to revolutionize cell and gene treatment worldwide.

For more information, visit www.basetherapeutics.com.

For partnering inquiries, contact BD@basetherapeutics.com.

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