Cell Lines for Rare Diseases

The immortalized cells have strong proliferation ability, can be passaged indefinitely, and can obtain a large number of cell resources in a shorter experimental cycle. Additionally, under the same genetic background, the stability of the experimental results can be guaranteed. A variety of cell immortalization methods have been established mainly based on the intervention of exogenous genes.
Commercial cell lines including HEK293T, Hela, K562 and NIH/3T3 have been used as models for various rare diseases. Through genetic engineering, the specific genes of the cell line is **mutated** or **overexpressed** to mimic the pathogenesis of the corresponding tissues. Additionally, **immortalized cells** derived from the same source as the diseased tissue provide a more suitable platform for the mechanistic study of rare diseases.