# KOR vs CRISPR Comparison

## Choosing the Right Model for Your Research

TACONIC

| MODEL | KOR (Knockout Repository) | CRISPR (Clustered Regularly Interspersed Palindromic Repeats) |
|---|---|---|
| DESCRIPTION | Repository of 4,000+ models covering broad classes of druggable targets | Custom model generation with Taconic's extensive expertise and experience |
| | Proprietary ES-cell based gene targeting using gene trapping technology | Uses state of the art CRISPR/Cas9 method |
| | Covers 17% of the mouse nuclear genome | May be applied to any region of the mouse nuclear genome |
| DELIVERABLES | KOR is cryopreserved. 4 Het mutant mice can be revitalized from the repository and delivered at 8 weeks of age in 14-16 weeks | A minimum of 2 founder mice at 8 weeks of age can be delivered in 12-16 weeks. 4 G1 Het mutant mice at 8 weeks of age can be delivered in 23-29 weeks |
| GENETIC BACKGROUND | Mixed 129S5; B6 | B6 or other strain (e.g. BALB/c) |
| SPECIES | Mouse | Mouse, Rat |
| PHENOTYPE | May be described in literature | Need to be characterized |
| | Phenotypic data may be purchased | |
| ADVANTAGES | Largest commercial KO repository | Rapid production of cohort on pure genetic background, no need for backcrossing |
| | Characterized models with validated genotyping protocols and germline transmission confirmed | Faster, simpler and more efficient than traditional gene targeting approach |
| | Phenotypic data are available for most models | Models are generated based on current genomics knowledge. This reduces the risk of modifying genomic elements such as regulatory modules that might lead to phenotypes unrelated to the deletion of the target genes |
| DISADVANTAGES | Mixed genetic background can result in incomplete penetrance and variable expression in phenotypes | Potential off-target effects, however so far no off-targets have been described using the approach applied by Taconic |
| | Changing from a mixed genetic background to a pure background requires 5-7 generations of backcrossing, i.e. 15-21 months of breeding | Potential of mosaicism in founder mice, i.e. founder animals might carry different mutations at the on-target site. Need to generate G1 animals to ensure the desired mutation is transmitted in the germline |
| | Phenotypic data may be limited in some instances | |
| TERMS OF SALE (TOS) | TOS permits the customer to breed and crossbreed the KOR model for its own research with no time limitation | TOS permits the customer to breed and crossbreed the CRISPR model for its own research with no time limitation |
| | TOS does not permit the researchers to transfer the KOR model or any material to a third party | CRISPR models may be transferred to third parties that are engaged in collaborative research and development with a customer only under a written agreement |
| | If the customer wants to engage a third party service provider (CRO) then it must first enter into a three-way MTA and pays a $7,500 annual fee | The customer may also engage a service provider to breed CRISPR model on behalf of customer |

**DISCUSS YOUR NEEDS**
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