# FGFR2 Knockout 293T Cell Line, Homozygous

Catalog No.: RM02412



### **Basic Information**

Catalog No. RM02412

Category Cell Line

Parental Cell line 293T

Genotype Knockout

## **Gene Information**

Gene Symbol FGFR2

Species Human

Gene ID 2263

Swiss Prot P21802

#### Synonyms

BBDS; BEK; BFR-1; CD332; CEK3; CFD1; ECT1; JWS; K-SAM; KGFR; TK14; TK25

#### Contact

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## Background

The protein encoded by this gene is a member of the fibroblast growth factor receptor family, where amino acid sequence is highly conserved between members and throughout evolution. FGFR family members differ from one another in their ligand affinities and tissue distribution. A full-length representative protein consists of an extracellular region, composed of three immunoglobulin-like domains, a single hydrophobic membrane-spanning segment and a cytoplasmic tyrosine kinase domain. The extracellular portion of the protein interacts with fibroblast growth factors, setting in motion a cascade of downstream signals, ultimately influencing mitogenesis and differentiation. This particular family member is a high-affinity receptor for acidic, basic and/or keratinocyte growth factor, depending on the isoform. Mutations in this gene are associated with Crouzon syndrome, Pfeiffer syndrome, Craniosynostosis, Apert syndrome, Jackson-Weiss syndrome, Beare-Stevenson cutis gyrata syndrome, Saethre-Chotzen syndrome, and syndromic craniosynostosis. Multiple alternatively spliced transcript variants encoding different isoforms have been noted for this gene. [provided by RefSeq, Jan 2009]

## **Product Information**

#### Description

FGFR2 Knockout 293T Cell line is engineered from 293T cell line with Gene-Editing Technology. Allele-1:exon8 was deleted Allele-2:exon8 was deleted Mammalian cells such as human, rat and mouse cells are normally diploid with two alleles.

Homozygote: both alleles were knocked out, mRNA has no signal, no expression of proteins. Heterozygote: only one allele was knocked out, the mRNA transcript levels was decreased compared to wild type, and the protein expression levels was also lower than that of the wild type.

#### Packaging

1 vial parental cell line and 1 vial knockout cell line

#### **Shipping Conditions**

Dry ice

Amount 1~5x10<sup>6</sup> cells/vial

#### Storage

Stored in liquid nitrogen for a long time less than -130°C. Minimizing freeze-thaw cycles.

#### Protocol

Upon arrival, it should be maintained in DMEM medium with 10%(v/v) fetal bovine serum and 100U penicillin-streptomycin, at  $37^{\circ}$ C with 5% CO<sub>2</sub> condition.

- 1. Thaw the vial in 37°C water bath ,and shake it to melt as soon as possible.
- Transfer the cell suspension to a 15mL conical tube with pre-warmed 5mL complete medium and centrifuge 1000rpm for approximately 5 minutes at room temperature.
- 3. Remove and discard the supernatant.
- 4. Resuspend the cell pellet with 1mL pre-warmed complete medium and seed in 10cm dish.
- 5. Add 8-10mL of complete medium.
- 6. Incubate the culture at 37°C incubator with 5%  $\rm CO_2.$
- 7. A subcultivation ratio of 1:2-1:4 is recommended.

## Sequencing data

WT CCCCATCACCAGAT\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*AGCGGGGAGGCGGG Mut CCCCATCACCAGAT\*\*\*Deletion\*\*\*AGCGGGGAGGCGGG Allele-1: exon8 was deleted

WT CCCCATCACCAGAT\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*AGCGGGGAGGCGGG Mut CCCCATCACCAGAT\*\*\*Deletion\*\*\*AGCGGGGAGGCGGG Allele-2: exon8 was deleted Genome sequence analysis of PCR products from parental (WT) and FGFR2 knockout (KO) 293T cells, using sanger sequencing.