

F12 Knockout 293T Cell Lysate, Homozygous

Catalog No.: RM50009

Basic Information

Catalog No.

RM50009

Category

Cell Lysate

Parental Cell line

293T

Genotype

Knockout

Gene Information

Gene Symbol

F12

Species

Human

Gene ID

2161


Swiss Prot

P00748

Synonyms

HAF; HAE3; HAEX; F12

Contact

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Background

This gene encodes coagulation factor XII which circulates in blood as a zymogen. This single chain zymogen is converted to a two-chain serine protease with an heavy chain (alpha-factor XIIa) and a light chain. The heavy chain contains two fibronectin-type domains, two epidermal growth factor (EGF)-like domains, a kringle domain and a proline-rich domain, whereas the light chain contains only a catalytic domain. On activation, further cleavages takes place in the heavy chain, resulting in the production of beta-factor XIIa light chain and the alpha-factor XIIa light chain becomes beta-factor XIIa heavy chain. Prekallikrein is cleaved by factor XII to form kallikrein, which then cleaves factor XII first to alpha-factor XIIa and then to beta-factor XIIa. The active factor XIIa participates in the initiation of blood coagulation, fibrinolysis, and the generation of bradykinin and angiotensin. It activates coagulation factors VII and XI. Defects in this gene do not cause any clinical symptoms and the sole effect is that whole-blood clotting time is prolonged.

Product Information

Description

F12 Knockout cell line is engineered from 293T cell line with Gene-Editing Technology.

Allele-1:exon2 was deleted

Allele-2:exon2 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 Lysate and 1 vial knockout cell Lysate

Shipping Conditions

4°C

Amount

50µL, 2µg/µL.

Storage

Lysate is stable for 12 months when stored at -20°C. Minimizing freeze-thaw cycles.

Protocol

To be used as WB control. Lysate is supplied in 1× SDS sample buffer (2% SDS, 60 mM Tris-HCl pH 6.8, 10% Glycerol, 0.02% Bromophenol blue, 60 mM beta-mercaptoethanol). Lysate should be boiled for 3 - 5 minutes before loading onto gel.

Sequencing data

WT AGCAACAGATCGGT*****GGCACTAGAGTGA
Mut AGCAACAGATCGGT***Deletion***GGCACTAGAGTGA
Allele-1: exon2 was deleted

Genome sequence analysis of PCR products from parental (WT) and F12 knockout (KO) 293T cells, using sanger sequencing.

WT CTAGCAACAGATCG*****TGAGCTGTGTGATC
Mut CTAGCAACAGATCG***Deletion***TGAGCTGTGTGATC
Allele-2: exon2 was deleted