abcam

Product datasheet

Human TMPRSS6 (Matriptase 2) knockout HeLa cell lysate ab258724

1 Image

Overview

Product name	Human TMPRSS6 (Matriptase 2) knockout HeLa cell lysate
Product overview	Knockout cell lysate achieved by CRISPR/Cas9.
Parental Cell Line	HeLa
Organism	Human
Mutation description	Knockout achieved by using CRISPR/Cas9, 1 bp insertion in exon9.
Passage number	<20
Knockout validation	Sanger Sequencing
Reconstitution notes	To use as WB control, resuspend the lyophilizate in 50 µL of LDS* Sample Buffer to have a final concentration of 2 mg/ml. For reducing conditions, we recommend a final concentration of 0.1 M DTT. **Usage of SDS sample buffer is not recommended with these lyophilized lysates.*
Notes	**Lysate preparation:** Our lysates are made using RIPA buffer to which we add a protease inhibitor cocktail and phosphatase inhibitor cocktail (ratio: 300:100:10). *This means that the protein of interest is denatured.* If you require a native form of the protein please use the live cell version - found **here**. Please refer to our lysis protocol for further details on how our lysates are prepared. **User storage instructions:** Lyophilizate may be stored at 4°C. After reconstitution, store at -20°C for short-term storage or -80°C for long-term storage. Access thousands of knockout cell lysates, generated from commonly used cancer cell lines. **See here for more information on knockout cell lysates.** Abcam has not and does not intend to apply for the REACH Authorisation of customers' uses of products that contain European Authorisation list (Annex XIV) substances. It is the responsibility of our customers to check the necessity of application of REACH Authorisation, and any other relevant authorisations, for their intended uses. This product is subject to limited use licenses from The Broad Institute, ERS Genomics Limited and Sigma-Aldrich Co. LLC, and is developed with patented technology. For full details of the licenses and patents please refer to our **limited use license** and **patent pages**.

Properties

Storage instructions Store at -80°C. Please refer to protocols.

Components	1 kit
ab262516 - Human TMPRSS6 knockout HeLa cell lysate	1 x 100µg
ab255929 - Human wild-type HeLa cell lysate	1 x 100µg

Cell type epithelial

Disease Adenocarcinoma

Gender Female

STR Analysis Amelogenin X D5S818: 11, 12 D13S317: 12, 13.3 D7S820: 8, 12 D16S539: 9, 10 vWA: 16, 18 TH01: 7 TPOX: 8,12 CSF1PO: 9, 10

Target

Function Serine protease which hydrolyzes a range of proteins including type I collagen, fibronectin and fibrinogen. Can also activate urokinase-type plasminogen activator with low efficiency. May play a specialized role in matrix remodeling processes in liver. Required to sense iron deficiency. Overexpression suppresses activation of the HAMP promoter.

Tissue specificity Liver specific.

Involvement in disease Defects in TMPRSS6 are the cause of iron-refractory iron deficiency anemia (IRIDA) [MIM:206200]; also known as hypochromic microcytic anemia with defect in iron metabolism or hereditary iron-handling disorder or pseudo-iron-deficiency anemia. Key features include congenital hypochromic microcytic anemia, very low mean corpuscular erythrocyte volume, low transferrin saturation, abnormal iron absorption characterized by no hematologic improvement following treatment with oral iron, and abnormal iron utilization characterized by a sluggish, incomplete response to parenteral iron.

Sequence similarities Belongs to the peptidase S1 family.
Contains 2 CUB domains.
Contains 3 LDL-receptor class A domains.
Contains 1 peptidase S1 domain.

Domain Cytoplasmic domain mediates HAMP suppression via proximal promoter element(s).

Cellular localization Cell membrane.

Images

Sanger Sequencing - Human TMPRSS6 knockout HeLa cell lysate (ab258724)

Homozygous: 1 bp insertion in exon9

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