Datasheet for ABIN1714561

anti-HFE antibody (AA 262-348)

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Overview

Quantity:	100 µL
Target:	HFE
Binding Specificity:	AA 262-348
Reactivity:	Human
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This HFE antibody is un-conjugated
Application:	Western Blotting (WB), ELISA, Flow Cytometry (FACS), Immunofluorescence (Cultured Cells) (IF (cc)), Immunofluorescence (Paraffin-embedded Sections) (IF (p)), Immunohistochemistry (Paraffin-embedded Sections) (IHC (p)), Immunocytochemistry (ICC), Immunohistochemistry (Frozen Sections) (IHC (fro))

Product Details

Immunogen:	KLH conjugated synthetic peptide derived from human HFE/Hemochromatosis
Isotype:	IgG
Cross-Reactivity:	Human
Predicted Reactivity:	Mouse,Rat,Dog,Cow,Sheep,Horse
Purification:	Purified by Protein A.

Target Details

Target:	HFE

Target Details

Alternative Name:	HFE/Hemochromatosis (HFE Products)
Background:	Synonyms: dJ221C16.10.1, Hemochromatosis, Hemochromatosis protein, Hereditary hemochromatosis protein, Hereditary hemochromatosis protein HLA H, HFE 1, HFE, HFE_HUMAN, HFE1, HH, High Fe, HLA H, HLA-H, HLAH, MGC:150812, MGC10379, MGC103790, MHC class I like protein HFE, MVCD7, TFQTL2. Background: The features of hemochromatosis include cirrhosis of the liver, diabetes, hypermelanotic pigmentation of the skin, and heart failure. Since hemochromatosis is a relatively easily treated disorder if diagnosed, this is a form of preventable cancer. The HFE protein, which is defective in hereditary hemo-chromatosis, normally is expressed in crypt enterocytes of the duodenum where it has a unique, predominantly intracellular localization. In placenta, the HFE protein co-localizes with and forms a stable association with the transferrin receptor (TfR), providing a link between the HFE protein and iron transport. Immunocytochemistry shows that the HFE protein and TfR both are expressed in the crypt enterocytes. Western blots show that, as is the case in human placenta, the HFE protein in crypt enterocytes is physically associated with the TfR and with _2-microglobulin. It is proposed that HFE has two mutually exclusive activities in cells: inhibition of uptake or inhibition of release of iron and that the balance between serum transferrin saturation and serum transferrin-receptor concentrations determines which of these functions predominates. The gene which encodes HFE maps to human chromosome 6p21.3.
Gene ID:	3077
Pathways:	Transition Metal Ion Homeostasis, Regulation of Leukocyte Mediated Immunity, Positive Regulation of Immune Effector Process

Application Details

Application Notes:	WB 1:300-5000
	ELISA 1:500-1000
	FCM 1:20-100
	IHC-P 1:200-400
	IHC-F 1:100-500
	IF(IHC-P) 1:50-200
	IF(IHC-F) 1:50-200
	IF(ICC) 1:50-200
	ICC 1:100-500

Restrictions:	For Research Use only

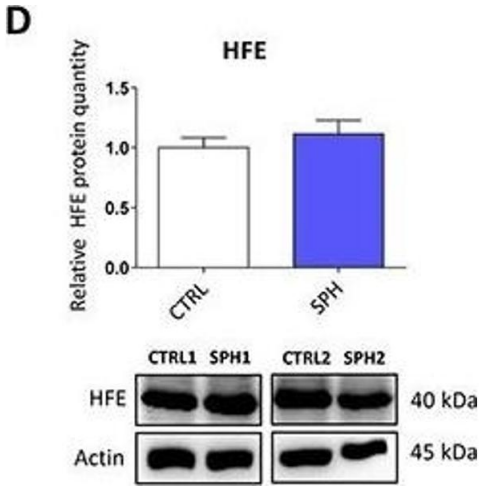
Handling

Format:	Liquid
Concentration:	1 µg/µL
Buffer:	0.01M TBS(pH 7.4) with 1 % BSA, 0.02 % Proclin300 and 50 % Glycerol.
Preservative:	ProClin
Precaution of Use:	This product contains ProClin: a POISONOUS AND HAZARDOUS SUBSTANCE, which should be handled by trained staff only.
Storage:	4 °C,-20 °C
Storage Comment:	Shipped at 4°C. Store at -20°C for one year. Avoid repeated freeze/thaw cycles.
Expiry Date:	12 months

Publications

Product cited in:	Rychtarcikova, Lettlova, Tomkova, Korenkova, Langerova, Simonova, Zjablovskaja, Alberich-Jorda, Neuzil, Truksa: "Tumor-initiating cells of breast and prostate origin show alterations in the expression of genes related to iron metabolism." in: **Oncotarget**, Vol. 8, Issue 4, pp. 6376-6398, (2016) (PubMed).

Images



Western Blotting

Image 1. Iron export machinery-related hephaestin (HEPH) and the hemochromatosis gene (HFE) related to systemic iron loading are elevated at the mRNA level but not on the protein level in tumor-initiating cells (TICs)Expression of the HEPH gene at the mRNA level in breast non-malignant cell line MCF10A, in TICs derived from breast cancer cell lines MCF-7, BT-474, T-47D and ZR-75-30 as well as from prostate cancer cell lines DU-145 and LNCaP has been determined (A) together with protein levels in the MCF-7 cell line (CTRL) and MCF-7 derived spheres (SPH) (B). Similarly, the expression of the HFE gene at the mRNA (C) level as well as protein level (D) in TICs is documented. Experiments

were performed at least in triplicate, standard error is SEM, p-values lower than 0.05 are denoted with a star and were calculated by the GenEx software using the unpaired t-test and plotted with GraphPad prism software. Number sign denotes statistical significance involving Dun-Bonferroni correction. The protein expression was quantified by the image J software from 2 to 5 independent samples, standard error is SEM, p-values lower than 0.05 are denoted with a star and were calculated and plotted in GraphPad prism, using the unpaired t-test. - figure provided by CiteAb. Source: PMID28031527

