abcam

Product datasheet

Anti-HCP1/PCFT antibody ab241949

2 Images

Overview

Product name	Anti-HCP1/PCFT antibody
Description	Rabbit polyclonal to HCP1/PCFT
Host species	Rabbit
Tested applications	**Suitable for:** WB, IP
Species reactivity	**Reacts with:** Human
Immunogen	Synthetic peptide within Human HCP1/PCFT aa 225-275. The exact sequence is proprietary. NP_542400.2 Database link: **Q96NT5**
Positive control	WB: HeLa whole cell lysate. IP: HCP1/PCFT IP in HeLa whole cell lysate.
General notes	The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing. If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
Storage buffer	pH: 7 Preservative: 0.09% Sodium azide Constituent: Tris citrate/phosphate pH 7 to 8
Purity	Immunogen affinity purified
Purification notes	Antibody was affinity purified using an epitope specific to HCP1/PCFT immobilized on solid support.
Clonality	Polyclonal

Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab241949 in the following tested applications.

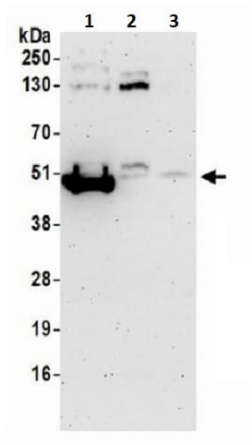
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB		1/2000 - 1/10000.
IP		Use at 2-10 µg/mg of lysate.

Target

Function	Has been shown to act both as an intestinal proton-coupled high-affinity folate transporter and as an intestinal heme transporter which mediates heme uptake from the gut lumen into duodenal epithelial cells. The iron is then released from heme and may be transported into the bloodstream. Dietary heme iron is an important nutritional source of iron. Shows a higher affinity for folate than heme.
Tissue specificity	Expressed in kidney, liver, placenta, small intestine, spleen, retina and retinal pigment epithelium. Lower levels found in colon and testis. Very low levels in brain, lung, stomach, heart and muscle. In intestine, expressed in duodenum with lower levels in jejunum, ileum, cecum, rectum and segments of the colon.
Involvement in disease	Defects in SLC46A1 are the cause of hereditary folate malabsorption (HFM) [MIM:229050]. HFM is a rare autosomal recessive disorder characterized by impaired intestinal folate absorption with folate deficiency resulting in anemia, hypoimmunoglobulinemia with recurrent infections, and recurrent or chronic diarrhea. In many patients, neurological abnormalities such as seizures or mental retardation become apparent during early childhood, attributed to impaired transport of folates into the central nervous system. When diagnosed early, the disorder can be treated by administration of folate. If untreated, it can be fatal and, if treatment is delayed, the neurological defects can become permanent.
Sequence similarities	Belongs to the major facilitator superfamily. SLC46A family.
Cellular localization	Apical cell membrane. Cytoplasm. Localizes to the apical membrane of intestinal cells in iron-deficient cells, while it resides in the cytoplasm in iron-replete cells.

Images



Western blot - Anti-HCP1/PCFT antibody (ab241949)

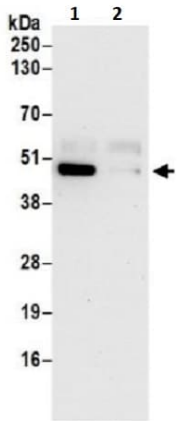
All lanes : Anti-HCP1/PCFT antibody (ab241949) at 0.1 µg/ml

Lane 1 : HeLa (Human epithelial cell line from cervix adenocarcinoma) whole cell lysate
Lane 2 : HEK-293T (Human epithelial cell line from embryonic kidney transformed with large T antigen) whole cell lysate
Lane 3 : Jurkat (Human T cell leukemia cell line from peripheral blood) whole cell lysate

Lysates/proteins at 50 µg per lane.

Exposure time: 3 minutes

Prepared using NETN lysis buffer.



Immunoprecipitation - Anti-HCP1/PCFT antibody (ab241949)

HCP1/PCFT was immunoprecipitated from HeLa (Human epithelial cell line from cervix adenocarcinoma) whole cell lysate (1 mg per IP reaction; 20% of IP loaded) prepared using NETN lysis buffer.

ab241949 used for IP at 6 µg per reaction. For WB 0.1 µg/ml.

Lane 1: ab241949 IP in HeLa whole cell lysate.
Lane 2: Control IgG.

Chemiluminescence detection: 30 seconds.

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