

HCP1 Polyclonal Antibody
Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP55987**Specification****HCP1 Polyclonal Antibody - Product Information**

Application	WB, IHC-P, IHC-F, IF, ICC, E
Primary Accession	Q96NT5
Reactivity	Rat, Bovine
Host	Rabbit
Clonality	Polyclonal
Calculated MW	49771

HCP1 Polyclonal Antibody - Additional Information**Gene ID** 113235**Other Names**

Proton-coupled folate transporter, G21, Heme carrier protein 1, PCFT/HCP1, Solute carrier family 46 member 1, SLC46A1, HCP1, PCFT

Dilution

WB~~1:1000<br \>IHC-P~~N/A<br \>IHC-F~~N/A<br \>IF~~1:50~200<br \>ICC~~N/A<br \>E~~N/A

Format

0.01M TBS(pH7.4), 0.09% (W/V) sodium azide and 50% Glyce

Storage

Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

HCP1 Polyclonal Antibody - Protein Information**Name** SLC46A1 {ECO:0000303|PubMed:20686069, ECO:0000312|HGNC:HGNC:30521}**Function**

Proton-coupled folate symporter that mediates folate absorption using an H(+) gradient as a driving force (PubMed:17129779, PubMed:17446347, PubMed:17475902, PubMed:19389703, PubMed:19762432, PubMed:25504888, PubMed:29344585)

target="_blank">29344585, PubMed:30858177, PubMed:31494288, PubMed:31792273, PubMed:32893190, PubMed:34619546). Involved in the intestinal absorption of folates at the brush-border membrane of the proximal jejunum, and the transport from blood to cerebrospinal fluid across the choroid plexus (PubMed:17129779, PubMed:17446347, PubMed:17475902, PubMed:19389703, PubMed:25504888, PubMed:29344585, PubMed:30858177, PubMed:31494288, PubMed:32893190). Functions at acidic pH via alternate outward- and inward-open conformation states (PubMed:32893190, PubMed:34040256). Protonation of residues in the outward open state primes the protein for transport (PubMed:34040256). Binding of folate promotes breaking of salt bridge network and subsequent closure of the extracellular gate, leading to the inward- open state and release of protons and folate (PubMed:34040256). Also able to transport antifolate drugs, such as methotrexate and pemetrexed, which are established treatments for cancer and autoimmune diseases (PubMed:18524888, PubMed:19762432, PubMed:22345511, PubMed:25608532, PubMed:28802835, PubMed:29326243, PubMed:34040256, PubMed:34619546). Involved in FOLR1-mediated endocytosis by serving as a route of export of folates from acidified endosomes (PubMed:19074442). Also acts as a lower-affinity, pH-independent heme carrier protein and constitutes the main importer of heme in the intestine (PubMed:17156779). Imports heme in the retina and retinal pigment epithelium, in neurons of the hippocampus, in hepatocytes and in the renal epithelial cells (PubMed:32621820). Hence, participates in the trafficking of heme and increases intracellular iron content (PubMed:32621820).

Cellular Location

Cell membrane; Multi-pass membrane protein. Apical cell membrane; Multi-pass membrane protein. Basolateral cell membrane; Multi-pass membrane protein. Endosome membrane; Multi-pass membrane protein. Cytoplasm {ECO:0000250|UniProtKB:Q6PEM8}. Note=Localizes to the apical membrane of intestinal cells in iron-deficient cells, while it resides in the cytoplasm in iron-replete cells (By similarity). Localizes to the basolateral membrane of choroid plexus (PubMed:19074442) {ECO:0000250|UniProtKB:Q6PEM8, ECO:0000269|PubMed:19074442}

Tissue Location

Expressed at highest level in the upper half of the small intestine (duodenum and jejunum), expression decreases downwardly in the subsequent quarter and is undetectable in the last quarter (the lowest ileum) (PubMed:17129779, PubMed:19762432). Also expressed in kidney, liver,

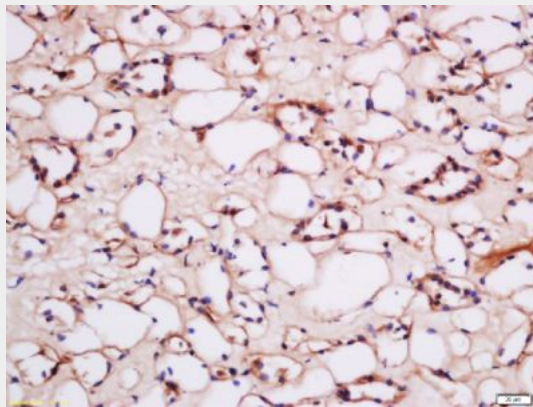
placenta, spleen, retina and retinal pigment epithelium (PubMed:17129779, PubMed:17335806). Lower levels found in testis (PubMed:17129779). Very low levels in brain, lung, stomach, heart and muscle (PubMed:17129779).

HCP1 Polyclonal Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

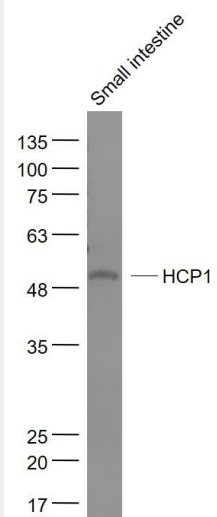
HCP1 Polyclonal Antibody - Images



Tissue/cell: human kidney tissue; 4% Paraformaldehyde-fixed and paraffin-embedded;

Antigen retrieval: citrate buffer (0.01M, pH 6.0), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37°C for 20 min;

Incubation: Anti-HCP1 Polyclonal Antibody, Unconjugated(bs-15428R) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining



Sample:

Small intestine (Mouse) Lysate at 40 ug

Primary: Anti- HCP1 (bs-15428R) at 1/1000 dilution

Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 50 kD

Observed band size: 50 kD