BACKGROUND

HCP1 (heme carrier protein 1), also known as proton-coupled folate transporter (PCFT), is a multi-pass transmembrane protein that is expressed in the small intestine. It is predominantly found in the duodenum and the jejunum localizing to the apical brush border. HCP1 is required for normal folate absorption in the intestine and is associated with folate homeostasis. HCP1 mediates the transport of folate and functions most optimally at a low extracellular pH of approximately 5.5. HCP1 functions independently of Na+ and is insensitive to membrane potential. It exhibits high affinity for folic acid and low affinity for the PT523 antifolate. HCP1 is posttranslationally regulated by iron levels in the duodenum. During iron deficiency, HCP1 localizes to the apical membrane; however, iron excess causes HCP1 to localize in the cytoplasm. Sulfasalazine is a potent inhibitor of HCP1. Mutations in the gene encoding HCP1 can result in the autosomal recessive disorder hereditary folate malabsorption (HFM).

REFERENCES


CHROMOSOMAL LOCATION

Genetic locus: Slc46a1 (mouse) mapping to 11 B5.

SOURCE

HCP1 (G-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of HCP1 of mouse origin.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.