

Anti-OCTN1 Antibody

Rabbit polyclonal antibody to OCTN1

Catalog # AP60194

Product Information

Application	WB
Primary Accession	Q9H015
Other Accession	Q9Z306
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	62155

Additional Information

Gene ID	6583
Other Names	ETT; OCTN1; UT2H; Solute carrier family 22 member 4; Ergothioneine transporter; ET transporter; Organic cation/carnitine transporter 1
Target/Specificity	KLH-conjugated synthetic peptide encompassing a sequence within the center region of human OCTN1. The exact sequence is proprietary.
Dilution	WB~~WB (1/500 - 1/1000)
Format	Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.09% (W/V) sodium azide.
Storage	Store at -20 °C.Stable for 12 months from date of receipt

Protein Information

Name	SLC22A4 (HGNC:10968)
Function	Transporter that mediates the transport of endogenous and microbial zwitterions and organic cations (PubMed: 10215651 , PubMed: 15107849 , PubMed: 15795384 , PubMed: 16729965 , PubMed: 20601551 , PubMed: 22206629 , PubMed: 22569296 , PubMed: 29530864). Functions as a Na(+)-dependent and pH-dependent high affinity microbial symporter of potent food-derived antioxidant ergothioneine (PubMed: 15795384 , PubMed: 29530864 , PubMed: 33124720). Transports one sodium ion with one ergothioneine molecule (By similarity). Involved in the absorption of ergothioneine from the luminal/apical side of the small intestine and renal tubular cells, and into non-parenchymal liver cells, thereby contributing to maintain steady-state ergothioneine level in the body (PubMed: 20601551). Also mediates the bidirectional transport of acetylcholine, although the exact transport mechanism has not been fully identified yet (PubMed: 22206629).

Most likely exports anti-inflammatory acetylcholine in non-neuronal tissues, thereby contributing to the non- neuronal cholinergic system (PubMed:[22206629](#), PubMed:[22569296](#)). Displays a general physiological role linked to better survival by controlling inflammation and oxidative stress, which may be related to ergothioneine and acetylcholine transports (PubMed:[15795384](#), PubMed:[22206629](#)). May also function as a low-affinity Na(+)-dependent transporter of L-carnitine through the mitochondrial membrane, thereby maintaining intracellular carnitine homeostasis (PubMed:[10215651](#), PubMed:[15107849](#), PubMed:[16729965](#)). May contribute to regulate the transport of cationic compounds in testis across the blood-testis- barrier (PubMed:[35307651](#)).

Cellular Location

Apical cell membrane; Multi-pass membrane protein. Basal cell membrane; Multi-pass membrane protein. Mitochondrion membrane; Multi-pass membrane protein. Note=Localized to the apical membrane of small intestines (PubMed:20601551). Localized to the basal membrane of Sertoli cells (PubMed:35307651).

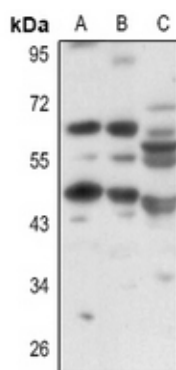
Tissue Location

Widely expressed (PubMed:9426230). Highly expressed in kidney, trachea, ileum, bone marrow and whole blood (PubMed:15795384, PubMed:9426230). Expressed in small intestines (PubMed:20601551). Weakly expressed in skeletal muscle, prostate, lung, pancreas, placenta, heart, uterus, spleen and spinal cord (PubMed:15795384, PubMed:16729965, PubMed:9426230). Expressed in testis, primarily to the basal membrane of Sertoli cells (PubMed:16729965, PubMed:35307651). Expressed in brain (PubMed:16729965). Expressed in liver (PubMed:16729965). Highly expressed in intestinal cell types affected by Crohn disease, including epithelial cells. Expressed in CD68 macrophage and CD43 T-cells but not in CD20 B-cells (PubMed:15107849). Predominantly expressed in CD14 cells in peripheral blood mononuclear cells (PubMed:14608356) Expressed in fetal liver, kidney and lung (PubMed:15795384, PubMed:9426230).

Background

KLH-conjugated synthetic peptide encompassing a sequence within the center region of human OCTN1. The exact sequence is proprietary.

Images



Western blot analysis of OCTN1 expression in HEK293T (A), Hela (B), mouse lung (C) whole cell lysates.

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