

Anti-OCTN1 Antibody
Rabbit polyclonal antibody to OCTN1
Catalog # AP60194**Specification**

Anti-OCTN1 Antibody - Product Information

Application	WB
Primary Accession	O9H015
Other Accession	O9Z306
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	62155

Anti-OCTN1 Antibody - 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

Recognizes endogenous levels of OCTN1 protein.

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

Anti-OCTN1 Antibody - Protein Information**Name** SLC22A4 ([HGNC:10968](#))**Function**

Transporter that mediates the transport of endogenous and microbial zwitterions and organic cations (PubMed: [15795384](http://www.uniprot.org/citations/15795384), PubMed: [10215651](http://www.uniprot.org/citations/10215651), PubMed: [16729965](http://www.uniprot.org/citations/16729965), PubMed: [20601551](http://www.uniprot.org/citations/20601551), PubMed: [22569296](http://www.uniprot.org/citations/22569296), PubMed: [29530864](http://www.uniprot.org/citations/29530864), PubMed: [15107849](http://www.uniprot.org/citations/15107849))

target="_blank">15107849, PubMed:22206629). 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:22569296, PubMed:22206629). 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:16729965, PubMed:15107849). 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:9426230, PubMed:15795384). Expressed in small intestines (PubMed:20601551) Weakly expressed in skeletal muscle, prostate, lung, pancreas, placenta, heart, uterus, spleen and spinal cord (PubMed:9426230, PubMed:15795384, PubMed:16729965). Expressed in testis, primarily to the basal membrane of Sertoli cells (PubMed:35307651, PubMed:16729965) 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:9426230, PubMed:15795384).

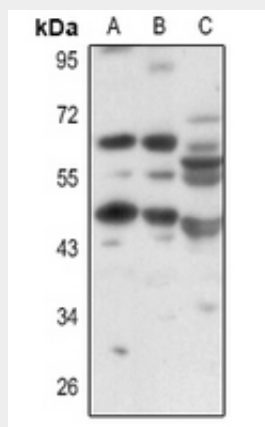
Anti-OCTN1 Antibody - Protocols

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](#)

Anti-OCTN1 Antibody - Images



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

Anti-OCTN1 Antibody - Background

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