

**PAHT Antibody**  
**Purified Rabbit Polyclonal Antibody (Pab)**  
**Catalog # AP51514****Specification**

---

**PAHT Antibody - Product Information**

|                   |                        |
|-------------------|------------------------|
| Application       | WB, E                  |
| Primary Accession | <a href="#">Q4U2R8</a> |
| Reactivity        | Human                  |
| Host              | Rabbit                 |
| Clonality         | Polyclonal             |
| Calculated MW     | 60 KDa                 |

**PAHT Antibody - Additional Information****Gene ID** 9356**Other Names**

Solute carrier family 22 member 6, Organic anion transporter 1, hOAT1, PAH transporter, hPAHT, Renal organic anion transporter 1, hROAT1, SLC22A6, OAT1, PAHT

**Dilution**

WB~~1:1000

E~~N/A

**Format**

0.01M PBS, pH 7.2, 0.09% (W/V) Sodium azide, Glycerol 50%

**Storage**

Store at -20 °C. Stable for 12 months from date of receipt

**PAHT Antibody - Protein Information****Name** SLC22A6 ([HGNC:10970](#))**Synonyms** OAT1, PAHT**Function**

Secondary active transporter that functions as a Na(+)- independent organic anion (OA)/dicarboxylate antiporter where the uptake of one molecule of OA into the cell is coupled with an efflux of one molecule of intracellular dicarboxylate such as 2-oxoglutarate or glutarate (PubMed: <a href="http://www.uniprot.org/citations/11669456" target="\_blank">11669456</a>, PubMed: <a href="http://www.uniprot.org/citations/11907186" target="\_blank">11907186</a>, PubMed: <a href="http://www.uniprot.org/citations/14675047" target="\_blank">14675047</a>, PubMed: <a href="http://www.uniprot.org/citations/22108572" target="\_blank">22108572</a>, PubMed: <a href="http://www.uniprot.org/citations/23832370" target="\_blank">23832370</a>, PubMed: <a href="http://www.uniprot.org/citations/28534121" target="\_blank">28534121</a>, PubMed: <a href="http://www.uniprot.org/citations/9950961" target="\_blank">9950961</a>).

Mediates the uptake of OA across the basolateral side of proximal tubule epithelial cells, thereby contributing to the renal elimination of endogenous OA from the systemic circulation into the urine (PubMed:<a href="http://www.uniprot.org/citations/9887087" target="\_blank">9887087</a>). Functions as a bioppterin transporters involved in the uptake and the secretion of coenzymes tetrahydrobiopterin (BH4), dihydrobiopterin (BH2) and sepiapterin to urine, thereby determining baseline levels of blood bioppterins (PubMed:<a href="http://www.uniprot.org/citations/28534121" target="\_blank">28534121</a>). Transports prostaglandin E2 (PGE2) and prostaglandin F2-alpha (PGF2-alpha) and may contribute to their renal excretion (PubMed:<a href="http://www.uniprot.org/citations/11907186" target="\_blank">11907186</a>). Also mediates the uptake of cyclic nucleotides such as cAMP and cGMP (PubMed:<a href="http://www.uniprot.org/citations/26377792" target="\_blank">26377792</a>). Involved in the transport of neuroactive tryptophan metabolites kynurenate (KYNA) and xanthurenate (XA) and may contribute to their secretion from the brain (PubMed:<a href="http://www.uniprot.org/citations/22108572" target="\_blank">22108572</a>, PubMed:<a href="http://www.uniprot.org/citations/23832370" target="\_blank">23832370</a>). May transport glutamate (PubMed:<a href="http://www.uniprot.org/citations/26377792" target="\_blank">26377792</a>). Also involved in the disposition of uremic toxins and potentially toxic xenobiotics by the renal organic anion secretory pathway, helping reduce their undesired toxicological effects on the body (PubMed:<a href="http://www.uniprot.org/citations/11669456" target="\_blank">11669456</a>, PubMed:<a href="http://www.uniprot.org/citations/14675047" target="\_blank">14675047</a>). Uremic toxins include the indoxyl sulfate (IS), hippurate/N-benzoylglycine (HA), indole acetate (IA), 3-carboxy-4- methyl-5-propyl- 2-furanpropionate (CMPF) and urate (PubMed:<a href="http://www.uniprot.org/citations/14675047" target="\_blank">14675047</a>, PubMed:<a href="http://www.uniprot.org/citations/26377792" target="\_blank">26377792</a>). Xenobiotics include the mycotoxin ochratoxin (OTA) (PubMed:<a href="http://www.uniprot.org/citations/11669456" target="\_blank">11669456</a>). May also contribute to the transport of organic compounds in testes across the blood-testis-barrier (PubMed:<a href="http://www.uniprot.org/citations/35307651" target="\_blank">35307651</a>).

### Cellular Location

Basolateral cell membrane; Multi-pass membrane protein. Basal cell membrane; Multi-pass membrane protein. Note=Localized to the basolateral membrane of renal proximal tubular cells (PubMed:9887087) Localized to the basal membrane of Sertoli cells (PubMed:35307651)

### Tissue Location

Strongly expressed in kidney (PubMed:10049739, PubMed:10462545, PubMed:10964714, PubMed:9887087, PubMed:9950961) Expressed at lower level in liver, skeletal muscle, brain and placenta (PubMed:10049739, PubMed:10462545, PubMed:9887087, PubMed:9950961). In kidney, found at the basolateral membrane of the proximal tubule (PubMed:9887087). In testis, primarily localized to the basal membrane of Sertoli cells and weakly expressed in Leydig cells and vascular endothelial cells (PubMed:35307651).

### PAHT 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](#)

### PAHT Antibody - Images

## **PAHT Antibody - Background**

Involved in the renal elimination of endogenous and exogenous organic anions. Functions as organic anion exchanger when the uptake of one molecule of organic anion is coupled with an efflux of one molecule of endogenous dicarboxylic acid (glutarate, ketoglutarate, etc). Mediates the sodium-independent uptake of 2,3-dimercapto-1-propanesulfonic acid (DMPS) (By similarity). Mediates the sodium-independent uptake of p- aminohippurate (PAH), ochratoxin (OTA), acyclovir (ACV), 3'-azido- 3'-deoxythymidine (AZT), cimetidine (CMD), 2,4-dichloro- phenoxyacetate (2,4-D), hippurate (HA), indoleacetate (IA), indoxyl sulfate (IS) and 3-carboxy-4-methyl-5-propyl-2-furanpropionate (CMPF), cidofovir, adefovir, 9-(2- phosphonylmethoxyethyl) guanine (PMEG), 9-(2-phosphonylmethoxyethyl) diaminopurine (PMEDAP) and edaravone sulfate. PAH uptake is inhibited by p- chloromercuribenzenesulphonate (PCMBs), diethyl pyrocarbonate (DEPC), sulindac, diclofenac, carprofen, glutarate and okadaic acid (By similarity). PAH uptake is inhibited by benzothiazolylcysteine (BTC), S-chlorotrifluoroethylcysteine (CTFC), cysteine S-conjugates S-dichlorovinylcysteine (DCVC), furosemide, steviol, phorbol 12-myristate 13-acetate (PMA), calcium ionophore A23187, benzylpenicillin, furosemide, indomethacin, bumetamide, losartan, probenecid, phenol red, urate, and alpha-ketoglutarate.

## **PAHT Antibody - References**

Reid G.,et al.Kidney Blood Press. Res. 21:233-237(1998).  
Hosoyamada M.,et al.Am. J. Physiol. 276:F122-F128(1999).  
Lu R.,et al.Am. J. Physiol. 276:F295-F303(1999).  
Race J.E.,et al.Biochem. Biophys. Res. Commun. 255:508-514(1999).  
Cihlar T.,et al.Mol. Pharmacol. 56:570-580(1999).