ALPHA DIAGNOSTIC INTERNATIONAL

Product Specification Sheet

Prostaglandin Transporter (PGT) Antibodies

□ Cat. # PGT12-A Rabbit Anti-Human PGT protein IgG (aff pure) **SIZE**: 100 ul

Mammalian kidney and liver are critical in maintaining physiological ionic environment. Kidney specializes in removing toxins, drugs, and other organic anions from the blood by a process called "renal secretion". Besides kidney, anionic substrates are also transported in other organs, e.g., choroid plexus, eye, airway, and placenta. Several multispecific **OATs** (OAT1-3, OAT-K1 and OATK2) and **OATPs** (organic anion transporting polypeptides; **oatp1-3, LST-1, and PGT**), have been cloned and characterized from various tissues. OATPs family of proteins share significant sequence homology, and general secondary protein structure (up to 12 transmembrane domains with cytoplasmic N and C-terminus).

Prostaglandins and thromboxanes play important physiological, pathological, and therapeutical roles in health and disease. **PGT** (prostaglandin transporter also known as martin F/G), a member of oatp family, mediates transport of PGs (PGD2, PGE1, PGE2, PGF2a) from the circulation. PGT (rat/human 643 aa; 12 TM) is expressed in brain, stomach, ileum, jejunum, and kidney but not in heart or skeletal muscle.

Source of Antigen and Antibodies

Antigen	Recombinant protein fragment of about 80-aa within the extracellular domain 5 (near the C-terminus) of human PGT (gene accession # Q92959, SO2A1 or **SLCO2A1**)
Ab Host/type	Rabbit, Polyclonal IgG, purified over antigen-agarose (Cat # PGT12-A) supplied in PBS, pH 7.4, 0.1% BSA, 40% glycerol and 0.05% azide
2-Ab	Cat # 20320, goat anti-rabbit IgG-HRP (AP, biotin, FITC conjugates also available).
-ve control IgG	# 20009-1, Rabbit (non-immune) IgG, purified, suitable for ELISA, Western, IHC as –ve control

Form & Storage of Antibodies/Peptide Control

Affinity pure IgG

□ 100 ug/100ul □ solution

Supplied in **Buffer**: PBS+0.1% BSA, azdie

Reconstitute powder in water at 1mg/ml

Storage

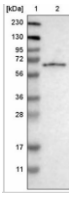
Short-term: unopened, undiluted liquid vials at -20OC and powder at 4oC or -20oC..

Long-term: at –20C or below in suitable aliquots after reconstitution. Do not freeze and thaw and store working, diluted solutions.

Stability: 6-12 months at –20oC or below.

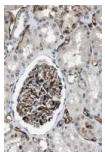
Shipping: 4oC for solutions and room temp for powder

Recommended Usage



Western Blotting 1-200-1:1000 diltuion for affinity pure antibody using ECL technique). PGT ~ 70-72 kDa. +ve control human cell line U-251MG/RT-4 or other cells and tissues (kidney) expressing PGT. Fig. shows blot with 20 ug protein of U-251 cells.

ELISA: Control protein can be used to coat ELISA plates at 1 ug/ml and detected with antibodies (1:500-2,000K for affinity pure).



Histochemistry & Immunofluorescence: We recommend the use of affinity purified antibody 1:10-1:500.

Specificity & Cross-reactivity

The ~80 AA human antigenic peptide is 100% conserved in monkey, gorilla, 92% in marmoset, 88% in chicken, 89% in squirrel and bat, 88% in hamster, 87% in vole, 84% in mouse and pig, walrus, dolphin, whale, dog and cat, 82% in ferret and camel, 81% in rabbit, 81% in rat, sheep and goat, 78% in bovine, 77% in elephant, 75% in horse, 52% in frog PGT or SLCO2A1 proteins. Antibody cross-reactivity in various species has not been studied.

General References:

Kanai N (1996) Science 268, 866-869; Lu R et al (1996) J Clin. Invest. 98, 1142-1149

Citations of for ADI Antibodies (see updated list at the web site)

Kis B 2006 J Appl Physiol 100, 1392-1399, Wb IHC
Scafidi S 2007 Neuroscience, Volume 146, Issue 3, 25 May 2007, Pages 1150-1157 WB

*This product is for In vitro research use only.

Related material available from ADI

Antibodies CLC1-7 and CLC-K1; KCCL1-3; AQP-9 and RUT; OCT and OAT, AE-3, and NACX1-3, NaPi and NaHCO3 (NBC1-3)

Recycle your blot in Just 5-10 min. (use the same strip for various Dopamine receptors) New formulation will strip antibodies in just a few minutes at room temp. (no boiling or pungent mercaptoethanol).

PGT12-A-P 140710A

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