

Product datasheet for **TA350768**

PRPS1 Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	IHC, WB
Recommended Dilution:	WB: 500-2000 WB positive control: 293T cells IHC: 50-200 Positive control: Human thyroid cancer Predicted cell location: Cytoplasm
Reactivity:	Human, Mouse
Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Immunogen:	Synthetic peptide of human PRPS1/2/1L1
Formulation:	pH7.4 PBS, 0.05% NaN ₃ , 40% Glycerol
Concentration:	lot specific
Purification:	Antigen affinity purification
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Predicted Protein Size:	35 kDa
Gene Name:	phosphoribosyl pyrophosphate synthetase 1
Database Link:	NP_002755 Entrez Gene 5631 Human P60891



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Background:

PRPS (phosphoribosyl pyrophosphate synthetase) proteins catalyze the synthesis of phosphoribosyl pyrophosphate (PRPP). Three human PRPS isoforms exist and are encoded by three different genes. PRPS1 and PRPS2 (also known as PRS1 and PRS2, respectively) are ubiquitously expressed, while PRPS3 (also known as PRPS1L1) is specific to the testis. PRPP is an important substrate synthesized from MgATP and ribose-5-phosphate in a reaction that requires inorganic phosphate and magnesium as a cofactor. PRPP is essential in the synthesis of nearly all nucleotides, implying that PRPS1/2 play an important role in nucleotide biosynthesis and purine metabolism. A mutation in the gene encoding PRPS1 may result in PRPS superactivity, a disease characterized by gout and the overproduction of purine nucleotides, uric acid and PRPP. PRPS1 mutations can also lead to a reduction in PRPS1 activity resulting in ARTS syndrome or CMTX5 (Charcot-Marie-Tooth disease X-linked recessive type 5).

Synonyms:

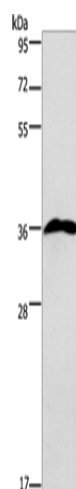
ARTS; CMTX5; DFN2; DFNX1; PPRibP; PRS-I; PRS1

Protein Families:

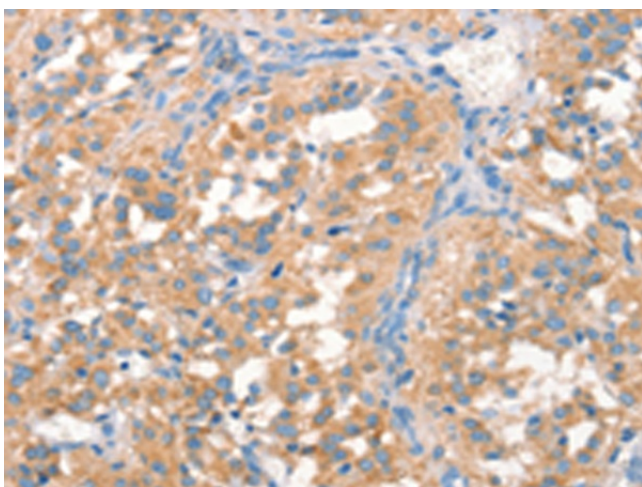
Druggable Genome

Protein Pathways:

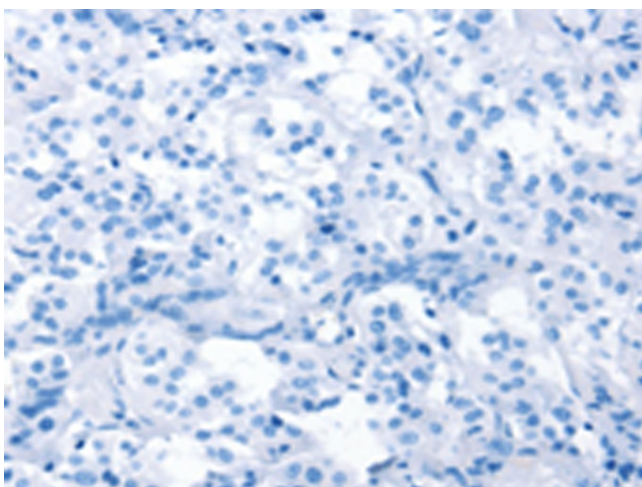
Metabolic pathways, Pentose phosphate pathway, Purine metabolism

Product images:

Gel: 8%SDS-PAGE
Lysate: 40 µg
Lane: 293T cells
Primary antibody: TA350768 (PRPS1/2/1L1 Antibody) at dilution 1/750
Secondary antibody: Goat anti rabbit IgG at 1/8000 dilution
Exposure time: 2 minutes



Immunohistochemistry of paraffin-embedded Human thyroid cancer tissue using TA350768 (PRPS1/2/1L1 Antibody) at dilution 1/50 (Original magnification: ×200)



Immunohistochemistry of paraffin-embedded Human thyroid cancer tissue using TA350768 (PRPS1/2/1L1 Antibody) at dilution 1/50, treated with synthetic peptide. (Original magnification: ×200)