10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

G6PDH Rabbit pAb

Catalog # AP98170

Product Information

Application	IHC-P, IHC-F, IF, E
Primary Accession	O95479
Other Accession	O95479
Predicted	Rat, Human, Mouse, Rabbit, Dog, Horse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	88893
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human G6PDH
Epitope Specificity	321-420/791
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

Additional Information

Gene ID	9563
Other Names	G6PE_HUMAN; GDH/6PGL endoplasmic bifunctional protein; H6PD; Hexose-6-phosphate dehydrogenase; Glucose 1-dehydrogenase; GDH; Glucose-6-phosphate dehydrogenase; 6-phosphogluconolactonase; EC:3.1.1.31; 6PGL; GDH; H6PDH; CORTRD1; H6PD;
Dilution	IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500,ELISA=1:5000-10000
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Protein Information

Name	H6PD (HGNC:4795)
Synonyms	GDH
Function	Bifunctional enzyme localized in the lumen of the endoplasmic reticulum that catalyzes the first two steps of the oxidative branch of the pentose phosphate pathway/shunt, an alternative to glycolysis and a major source of reducing power and metabolic intermediates for biosynthetic processes (By similarity). Has a hexose-6-phosphate dehydrogenase activity, with broad

	substrate specificity compared to glucose-6-phosphate 1-dehydrogenase/G6PD, and catalyzes the first step of the pentose phosphate pathway (PubMed:12858176, PubMed:18628520, PubMed:23132696). In addition, acts as a 6-phosphogluconolactonase and catalyzes the second step of the pentose phosphate pathway (By similarity). May have a dehydrogenase activity for alternative substrates including glucosamine 6-phosphate and glucose 6-sulfate (By similarity). The main function of this enzyme is to provide reducing equivalents such as NADPH to maintain the adequate levels of reductive cofactors in the oxidizing environment of the endoplasmic reticulum (PubMed:12858176, PubMed:18628520, PubMed:23132696). By producing NADPH that is needed by reductases of the lumen of the endoplasmic reticulum like corticosteroid 11-beta-dehydrogenase isozyme 1/HSD11B1, indirectly regulates their activity (PubMed:18628520).
Cellular Location	Endoplasmic reticulum lumen
Tissue Location	Present in most tissues examined, strongest in liver.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.