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PHGDH Rabbit pAb

Catalog # AP98860

Product Information

Application	WB, IHC-P, IHC-F, IF, E
Primary Accession	O43175
Other Accession	O43175
Predicted	Rat, Pig, Human, Mouse, Rabbit, Dog, Horse, Sheep
Host	Rabbit
Clonality	Polyclonal
Calculated MW	56651
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human PHGDH
Epitope Specificity	101-200/533
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SIMILARITY	Belongs to the D-isomer specific 2-hydroxyacid dehydrogenase family.
SUBUNIT	Homotetramer
DISEASE	Defects in PHGDH are the cause of phosphoglycerate dehydrogenase deficiency (PHGDH deficiency) . It is characterized by congenital microcephaly, psychomotor retardation, and seizures.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	This gene encodes the enzyme which is involved in the early steps of L-serine synthesis in animal cells. L-serine is required for D-serine and other amino acid synthesis. The enzyme requires NAD/NADH as a cofactor and forms homotetramers for activity. Mutations in this gene have been found in a family with congenital microcephaly, psychomotor retardation and other symptoms. Multiple alternatively spliced transcript variants have been found, however the full-length nature of most are not known. [provided by RefSeq, Aug 2011]

Additional Information

Gene ID	26227
Other Names	3-PGDH; 3PGDH; HEL-S-113; NLS; NLS1; PDG; PGAD; PGD; PGDH; PHGDHD; SERA; 4930479N23; A10; SERA_HUMAN; PHGDH; 2-oxoglutarate reductase; Malate dehydrogenase; 1.1.1.95; PGDH3; SERA_MOUSE; SERA_RAT; phosphoglycerate dehydrogenase; D-3-phosphoglycerate dehydrogenase
Dilution	WB=1:500-2000,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	PHGDH
Synonyms	PGDH3
Function	Catalyzes the reversible oxidation of 3-phospho-D-glycerate to 3-phosphonooxypyruvate, the first step of the phosphorylated L- serine biosynthesis pathway. Also catalyzes the reversible oxidation of 2-hydroxyglutarate to 2-oxoglutarate and the reversible oxidation of (S)-malate to oxaloacetate.

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