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HGD Rabbit pAb

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Catalog # AP56013

Product Information

Application	WB
Primary Accession	Q93099
Reactivity	Mouse
Predicted	Human, Rat, Rabbit
Host	Rabbit
Clonality	Polyclonal
Calculated MW	49964
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human HGD
Epitope Specificity	351-445/445
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 homogentisate dioxygenase family.
DISEASE	Alkaptonuria (AKU) [MIM:203500]: An autosomal recessive error of metabolism characterized by an increase in the level of homogentisic acid. The clinical manifestations are urine that turns dark on standing and alkalinization, black ochronotic pigmentation of cartilage and collagenous tissues, and spine arthritis. Note=The disease is caused by mutations affecting the gene represented in this entry.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	HGD is a 445 amino acid protein that belongs to the homogentisate dioxygenase family and is involved in the pathway of amino acid degradation. Expressed at high levels in kidney, colon, liver, prostate and small intestine, HGD uses iron as a cofactor to catalyze the oxygen-dependent conversion of homogentisate to 4-maleylacetoacetate, a reaction that is the fourth step in the creation of L-phenylalanine from fumarate and acetoacetic acid. Defects in the gene encoding HGD are the cause of alkaptonuria (AKU), an autosomal recessive disorder that is characterized by urine that turns dark on standing and alkalinization, black ochronotic pigmentation of cartilage and collagenous tissues and spine arthritis.

Additional Information

Gene ID	3081
Other Names	Homogentisate 1, 2-dioxygenase, 1.13.11.5, Homogentisate oxygenase, Homogentisic acid oxidase, Homogentisicase, HGD, HGO
Target/Specificity	Highest expression in the prostate, small intestine, colon, kidney and liver.

Dilution	WB=1:500-2000
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.

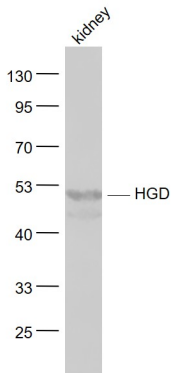
Protein Information

Name	HGD
Synonyms	HGO
Function	Catalyzes the conversion of homogentisate to maleylacetoacetate.
Tissue Location	Highest expression in the prostate, small intestine, colon, kidney and liver

Background

HGD is a 445 amino acid protein that belongs to the homogentisate dioxygenase family and is involved in the pathway of amino acid degradation. Expressed at high levels in kidney, colon, liver, prostate and small intestine, HGD uses iron as a cofactor to catalyze the oxygen-dependent conversion of homogentisate to 4-maleylacetoacetate, a reaction that is the fourth step in the creation of L-phenylalanine from fumarate and acetoacetic acid. Defects in the gene encoding HGD are the cause of alkaptonuria (AKU), an autosomal recessive disorder that is characterized by urine that turns dark on standing and alkalinization, black ochronotic pigmentation of cartilage and collagenous tissues and spine arthritis.

Images



Sample:
Kidney (Mouse) Lysate at 40 ug
Primary: Anti- HGD (AP56013) at 1/1000 dilution
Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution
Predicted band size: 50 kD
Observed band size: 50 kD