Best Tools for immunology Research

GLSK rabbit pAb

Catalog No :	YN4051
Reactivity :	Human;Mouse;Rat
Applications :	WB
Target :	GLSK
Fields :	>>Arginine biosynthesis;>>Alanine, aspartate and glutamate metabolism;>>D-Amino acid metabolism;>>Metabolic pathways;>>Glutamatergic synapse;>>GABAergic synapse;>>Proximal tubule bicarbonate reclamation;>>MicroRNAs in cancer;>>Central carbon metabolism in cancer
Gene Name :	GLS GLS1 KIAA0838
Protein Name :	GLSK
Human Gene Id :	2744
Human Swiss Prot No :	O94925
Mouse Gene Id :	14660
Mouse Swiss Prot No :	D3Z7P3
Rat Gene Id :	24398
Rat Swiss Prot No :	P13264
Immunogen :	Synthesized peptide derived from human GLSK AA range: 162-212
Specificity :	This antibody detects endogenous levels of GLSK at Human/Mouse/Rat
Formulation :	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Source :	Polyclonal, Rabbit,IgG
Dilution :	WB 1□500-2000

Purification : The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.

Concentration : 1 mg/ml

Storage Stability : -15°C to -25°C/1 year(Do not lower than -25°C)

Molecularweight : 74kD

Background : This gene encodes the K-type mitochondrial glutaminase. The encoded protein is an phosphate-activated amidohydrolase that catalyzes the hydrolysis of glutamine to glutamate and ammonia. This protein is primarily expressed in the brain and kidney plays an essential role in generating energy for metabolism, synthesizing the brain neurotransmitter glutamate and maintaining acid-base balance in the kidney. Alternate splicing results in multiple transcript variants. [provided by RefSeq, Jan 2012],

Function : catalytic activity:L-glutamine + H(2)O = L-glutamate + NH(3).,function:Catalyzes the first reaction in the primary pathway for the renal catabolism of glutamine.,similarity:Belongs to the glutaminase family.,similarity:Contains 1 ANK repeat.,tissue specificity:KGA is expressed predominantly in brain and kidney but not in liver, GAC is expressed principally in cardiac muscle and pancreas but not in liver or brain, and GAM is expressed solely in cardiac and skeletal muscle.,

Subcellular Location : [Isoform 1]: Mitochondrion . Cytoplasm, cytosol . The 74-kDa cytosolic precursor is translocated into the mitochondria and processed via a 72-kDa intermediate to yield the mature 68- and 65-kDa subunits. .; [Isoform 3]: Mitochondrion .; [Glutaminase kidney isoform, mitochondrial 68 kDa chain]: Mitochondrion matrix . Produced by the proteolytic processing of the 74-kDa cytosolic precursor. .; [Glutaminase kidney isoform, mitochondrial 65 kDa chain]: Mitochondrion matrix . Produced by the proteolytic processing of the 74-kDa cytosolic precursor. .

Expression : Isoform 1 and isoform 3 are detected in brain cortex. Isoform 3 is highly expressed in astrocytoma, ganglioglioma and ependymoma. Isoform 1 is highly expressed in brain and kidney, but not detected in liver. Isoform 3 is highly expressed in heart and pancreas, detected at lower levels in placenta, lung, pancreas and kidney, but is not detected in liver. Isoform 2 is expressed in cardiac and skeletal muscle.

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