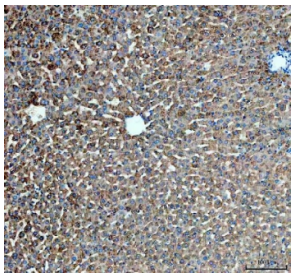
PYGL Antibody / Glycogen phosphorylase, Liver (RQ8159)

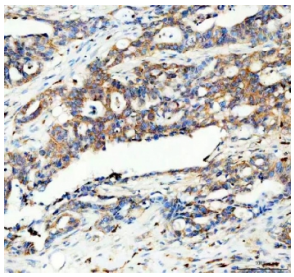
Catalog No.	Formulation	Size
RQ8159	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

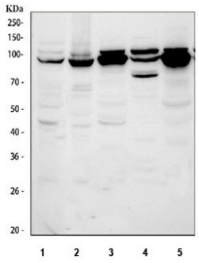
Availability	1-3 business days
Species Reactivity	Human, Mouse, Rat
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Antigen affinity purified
Buffer	Lyophilized from 1X PBS with 2% Trehalose
UniProt	P06737
Applications	Western Blot : 0.5-1ug/ml Flow Cytometry : 1-3ug/million cells Immunohistochemistry (FFPE) : 2-5ug/ml Direct ELISA : 0.1-0.5ug/ml
Limitations	This PYGL antibody is available for research use only.



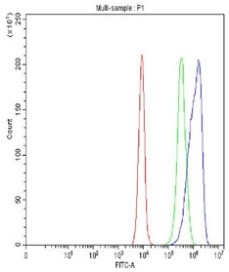
IHC staining of FFPE rat liver tissue with PYGL antibody. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



IHC staining of FFPE human pancreas cancer tissue with PYGL antibody. HIER: boil tissue sections in pH8 EDTA for 20 min and allow to cool before testing.



Western blot testing of 1) human HaCaT, 2) human PC-3, 3) rat liver, 4) rat lung and 5) mouse liver tissue lysate with PYGL antibody. Predicted molecular weight ~97 kDa.



Flow cytometry testing of fixed and permeabilized human A431 cells with PYGL antibody at 1ug/million cells (blocked with goat sera); Red=cells alone, Green=isotype control, Blue= PYGL antibody.

Description

Glycogen phosphorylase, liver form (PYGL), also known as human liver glycogen phosphorylase (HLGP), is an enzyme that in humans is encoded by the PYGL gene on chromosome 14. This gene encodes a homodimeric protein that catalyses the cleavage of alpha-1,4-glucosidic bonds to release glucose-1-phosphate from liver glycogen stores. This protein switches from inactive phosphorylase B to active phosphorylase A by phosphorylation of serine residue 15. Activity of this enzyme is further regulated by multiple allosteric effectors and hormonal controls. Humans have three glycogen phosphorylase genes that encode distinct isozymes that are primarily expressed in liver, brain and muscle, respectively. The liver isozyme serves the glycemic demands of the body in general while the brain and muscle isozymes supply just those tissues. In glycogen storage disease type VI, also known as Hers disease, mutations in liver glycogen phosphorylase inhibit the conversion of glycogen to glucose and results in moderate hypoglycemia, mild ketosis, growth retardation and hepatomegaly. Alternative splicing results in multiple transcript variants encoding different isoforms.

Application Notes

Optimal dilution of the PYGL antibody should be determined by the researcher.

Immunogen

E. coli-derived recombinant human protein (amino acids K313-K804) was used as the immunogen for the PYGL antibody.

Storage

After reconstitution, the PYGL antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.