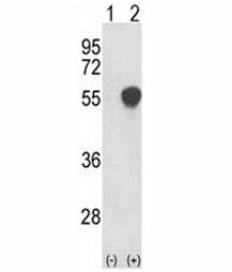
Phosphoglycerate Dehydrogenase Antibody / PGDH Antibody (F48338)

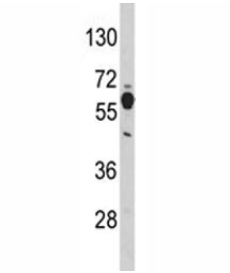
Catalog No.	Formulation	Size
F48338-0.4ML	In 1X PBS, pH 7.4, with 0.09% sodium azide	0.4 ml
F48338-0.08ML	In 1X PBS, pH 7.4, with 0.09% sodium azide	0.08 ml

Bulk quote request

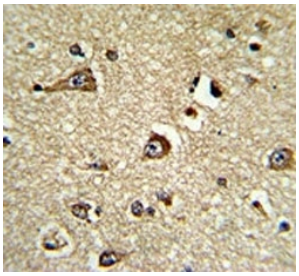
Availability	1-3 business days
Species Reactivity	Human, Mouse
Predicted Reactivity	Bovine, Pig, Primate
Format	Purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit Ig
Purity	Purified
UniProt	O43175
Applications	Western blot: 1:1000 IHC (Paraffin): 1:50-1:100 Flow Cytometry: 1:10-1:50
Limitations	This Phosphoglycerate Dehydrogenase Antibody / PGDH Antibody is available for research use only.



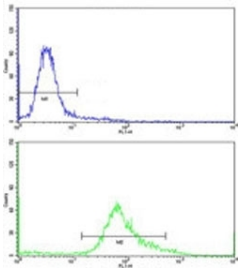
Phosphoglycerate Dehydrogenase Antibody Transfected Cell WB. Western blot testing of human 293 cell lysates with Phosphoglycerate Dehydrogenase Antibody. Lane 1: non-transfected 293 cells; Lane 2: 293 cells transiently transfected with the PHGDH gene. Predicted molecular weight: ~56 kDa. Phosphoglycerate Dehydrogenase Antibody / PGDH Antibody detects PHGDH expression following gene transfection and supports studies of serine biosynthesis, amino acid metabolism and metabolic enzyme regulation pathways.



Phosphoglycerate Dehydrogenase Antibody Mouse Brain WB. Western blot testing of mouse brain tissue lysate with Phosphoglycerate Dehydrogenase Antibody. Predicted molecular weight: ~56 kDa. Phosphoglycerate Dehydrogenase Antibody / PGDH Antibody detects endogenous PHGDH expression and supports studies of serine biosynthesis, amino acid metabolism, metabolic enzyme regulation and cellular biosynthetic pathways.



Phosphoglycerate Dehydrogenase Antibody Human Brain IHC. Immunohistochemistry staining of FFPE human brain tissue with Phosphoglycerate Dehydrogenase Antibody. The tissue section was incubated with PHGDH antibody and developed using chromogenic detection. Phosphoglycerate Dehydrogenase Antibody / PGDH Antibody demonstrates cytoplasmic staining consistent with PHGDH expression and supports studies of serine biosynthesis, amino acid metabolism, metabolic enzyme regulation and neurological metabolic pathways.



Phosphoglycerate Dehydrogenase Antibody HeLa Cell FACS. Flow cytometry testing of human HeLa cells with Phosphoglycerate Dehydrogenase Antibody. FITC-conjugated goat anti-rabbit IgG was used for detection. Green histogram represents PHGDH antibody staining and blue histogram represents the negative control. Phosphoglycerate Dehydrogenase Antibody / PGDH Antibody demonstrates detection of endogenous PHGDH expression and supports studies of serine biosynthesis, amino acid metabolism and metabolic enzyme regulation pathways.

Description

Phosphoglycerate Dehydrogenase Antibody / PGDH Antibody detects PHGDH, the metabolic enzyme that catalyzes the first committed reaction in the de novo serine biosynthesis pathway. Phosphoglycerate dehydrogenase converts the glycolytic intermediate 3-phosphoglycerate into 3-phosphohydroxypyruvate, initiating a pathway that provides serine for protein synthesis, nucleotide biosynthesis, lipid metabolism and one-carbon metabolic reactions. By linking glycolysis with amino acid production, PGDH plays an important role in regulating cellular metabolism and supporting biosynthetic activity in rapidly growing cells.

PHGDH is a key regulator of metabolic pathway balance and cellular adaptation. The serine produced through PHGDH-dependent biosynthesis contributes to several essential processes, including redox regulation, phospholipid production and methylation reactions. Changes in PHGDH expression and activity have been investigated in models of altered metabolism, where cells adjust nutrient utilization to meet increased biosynthetic requirements. Phosphoglycerate Dehydrogenase Antibody is commonly used by researchers studying amino acid metabolism, metabolic pathway regulation and cellular growth mechanisms.

Research involving PGDH spans several areas including cancer metabolism, developmental biology and metabolic regulation. Increased PHGDH expression has been studied in multiple cancer research models because of its association with metabolic reprogramming and increased demand for serine pathway activity. PHGDH is also investigated in normal cellular physiology because proper serine production is required for diverse biological processes. Analysis of PGDH expression provides insight into how cells coordinate energy metabolism with biosynthesis and cellular function.

Phosphoglycerate Dehydrogenase Antibody applications include detection of PHGDH expression, localization and regulation in biological samples. This antibody has been validated using PHGDH knockout cell models, confirming target specificity through loss of signal following removal of the target protein. NSJ Bioreagents provides Phosphoglycerate Dehydrogenase Antibody / PGDH Antibody for researchers studying serine biosynthesis, metabolic enzymes and amino acid metabolism pathways.

Phosphoglycerate Dehydrogenase Antibody detects the PGDH metabolic enzyme involved in de novo serine synthesis, amino acid metabolism and cellular biosynthetic pathways; additional serine metabolism research tools are available on our PHGDH Antibody / Serine Biosynthesis Enzyme Antibody page.

Application Notes

Titration of the Phosphoglycerate Dehydrogenase Antibody / PGDH Antibody may be required due to differences in protocols and secondary/substrate sensitivity.

Immunogen

A portion of amino acids 140-168 from the human protein was used as the immunogen for this PHGDH antibody.

Storage

Aliquot the PHGDH antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.

Alternate Names

PHGDH Antibody, 3-Phosphoglycerate Dehydrogenase Antibody, D-3-Phosphoglycerate Dehydrogenase Antibody, Serine Biosynthesis Enzyme Antibody, Serine Pathway Protein Antibody, Metabolic Enzyme Antibody

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