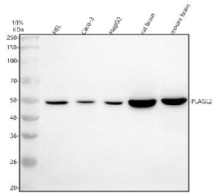
PLAGL2 Antibody / Pleiomorphic adenoma gene-like 2 (FY12796)

Catalog No.	Formulation	Size
FY12796	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml	100 ug

Bulk quote request

Availability	1-2 days
Species Reactivity	Human, Mouse, Rat
Format	Lyophilized
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Immunogen affinity purified
Buffer	Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na2HPO4.
UniProt	Q9UPG8
Applications	Western Blot : 0.25-0.5ug/ml ELISA : 0.1-0.5ug/ml
Limitations	This PLAGL2 antibody is available for research use only.



Western blot analysis of PLAGL2 using anti-PLAGL2 antibody. Electrophoresis was performed on a 10% SDS-PAGE gel at 80V (Stacking gel) / 120V (Resolving gel) for 2 hours. Lane 1: human HEL whole cell lysates, Lane 2: human Caco-2 whole cell lysates, Lane 3: human HepG2 whole cell lysates, Lane 4: rat brain tissue lysates, Lane 5: mouse brain tissue lysates. After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-PLAGL2 antibody at 0.5 ug/ml overnight at 4oC, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal was developed using an ECL Plus Western Blotting Substrate. A predominant band is detected near ~49 kDa, consistent with the known faster SDS-PAGE migration of the ~55 kDa PLAGL2 zinc-finger transcription factor.

Description

PLAGL2 antibody detects Pleiomorphic adenoma gene-like protein 2, a zinc finger transcription factor involved in cell

proliferation, differentiation, and tumorigenesis. Encoded by the PLAGL2 gene on chromosome 20q11.21, this nuclear protein belongs to the PLAG family of transcription factors, which regulate gene expression through DNA binding to consensus sequences within promoter regions. PLAGL2 is known for its dual role in promoting stem cell maintenance and activating oncogenic pathways, as well as influencing differentiation and apoptosis depending on cellular context.

Structurally, PLAGL2 contains seven C2H2-type zinc finger domains that enable DNA binding and transcriptional activation of target genes such as IGF2, PAI-1, and NRP1. It interacts with coactivators and chromatin remodeling proteins to modulate gene transcription linked to growth and migration. PLAGL2 contributes to the regulation of Wnt and hypoxia signaling pathways by activating genes involved in angiogenesis and metabolic adaptation.

The PLAGL2 antibody is widely used in cancer biology, developmental biology, and transcriptional regulation research to study gene activation and oncogenic signaling. Western blot analysis typically identifies a 57 kilodalton band corresponding to PLAGL2, while immunofluorescence shows nuclear localization consistent with its role as a transcriptional regulator. This antibody allows investigation of transcriptional networks and regulatory mechanisms controlling cellular transformation and differentiation.

In oncology, PLAGL2 has been implicated in colorectal, lung, and brain cancers where it promotes stem-like characteristics, epithelial-mesenchymal transition, and resistance to apoptosis. Conversely, in certain developmental contexts, PLAGL2 supports normal differentiation by activating lineage-specific genes. The PLAGL2 antibody provides a powerful tool for exploring these complex regulatory roles in tumor and stem cell biology. NSJ Bioreagents validates this antibody for its applications, ensuring dependable detection in transcriptional and cancer signaling studies.

Application Notes

Optimal dilution of the PLAGL2 antibody should be determined by the researcher.

Immunogen

E.coli-derived human PLAGL2 recombinant protein (Position: K269-E365) was used as the immunogen for the PLAGL2 antibody.

Storage

After reconstitution, the PLAGL2 antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.