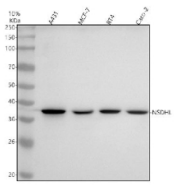
NSDHL Antibody / NADP-dependent steroid dehydrogenase-like protein [clone 30N66] (FY12332)

Catalog No.	Formulation	Size
FY12332	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA	100 ul

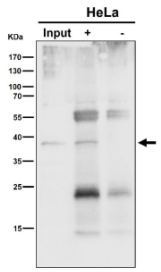
Recombinant RABBIT MONOCLONAL

Bulk quote request

Availability	2-3 weeks
Species Reactivity	Human, Mouse, Rat
Format	Liquid
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG
Clone Name	30N66
Purity	Affinity chromatography
Buffer	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA.
UniProt	Q15738
Applications	Western Blot : 1:500-1:2000 Immunoprecipitation : 1:50
Limitations	This NSDHL antibody is available for research use only.



Western blot analysis of NSDHL using anti-NSDHL antibody. Lane 1: human whole cell lysates, Lane 2: human MCF-7 whole cell lysates, Lane 3: human RT4 whole cell lysates, Lane 4: human CACO-2 whole cell 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-NSDHL antibody at 1:500 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 1:500 for 1.5 hour at RT. The signal was developed using enhanced chemiluminescent. NSDHL antibody detects a single band migrating at ~38 kDa across the indicated cell and tissue lysates. Although the theoretical molecular weight is ~42 kDa, NSDHL is an ER-associated membrane protein that typically migrates faster on SDS-PAGE due to signal peptide cleavage and altered SDS binding. The observed size is consistent with published reports of the mature NSDHL form.



Immunoprecipitation analysis using the NSDHL antibody at 1:50 dilution. Western blot at 1:1000 dilution. NSDHL is an ER-associated membrane protein that typically migrates faster on SDS-PAGE due to signal peptide cleavage and altered SDS binding and is commonly observed at ~38 kDa.

Description

NSDHL antibody is designed to detect NAD(P)-dependent steroid dehydrogenase-like protein, an essential enzyme of the cholesterol biosynthetic pathway. NSDHL is localized to the endoplasmic reticulum membrane and functions as a C-4 sterol dehydrogenase, catalyzing the removal of methyl groups from sterol intermediates. This enzymatic activity is necessary for producing cholesterol and other sterols that are critical for membrane structure, signaling, and developmental processes.

NSDHL antibody is widely used in studies of metabolism, developmental biology, and genetic disorders. Mutations in the NSDHL gene are associated with CHILD syndrome (congenital hemidysplasia with ichthyosiform erythroderma and limb defects), an X-linked dominant disorder characterized by skin abnormalities and limb malformations. Detecting NSDHL with specific antibodies enables researchers to evaluate expression and function in disease models and clinical studies.

Applications of NSDHL antibody include western blotting, immunohistochemistry, and immunofluorescence. In western blot assays, NSDHL antibody detects the protein with high specificity, confirming its expression across cell and tissue samples. Immunohistochemistry reveals distribution patterns in tissues involved in sterol metabolism, while immunofluorescence highlights its endoplasmic reticulum localization in cultured cells. These experimental approaches provide important insights into cholesterol biosynthesis at the molecular level.

NSDHL plays a vital role in cholesterol metabolism, and dysregulation of its activity has broader implications for human health. Abnormal sterol accumulation contributes to metabolic disease, cardiovascular dysfunction, and neurodevelopmental abnormalities. Using NSDHL antibody, researchers can track enzyme activity and explore how disruptions in cholesterol biosynthesis impact cellular and systemic function.

Beyond inherited disorders, NSDHL has been implicated in cancer biology. Cholesterol metabolism supports rapid tumor growth, and enzymes in the biosynthetic pathway are increasingly recognized as potential therapeutic targets. Monitoring NSDHL expression with antibodies allows investigators to connect sterol metabolism with oncogenic processes, highlighting new avenues for intervention.

NSDHL antibody from NSJ Bioreagents is a reliable reagent for studying sterol metabolism, developmental genetics, and cholesterol-related disease. Its specificity ensures accurate detection in multiple research settings, supporting basic and translational studies alike.

Application Notes

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

Immunogen

A synthesized peptide derived from human NSDHL was used as the immunogen for the NSDHL antibody.

Storage

Store the NSDHL antibody at -20oC.

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