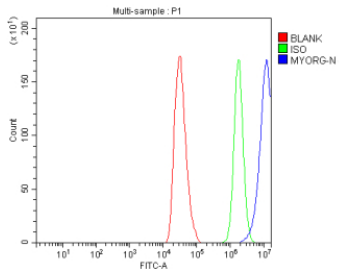
MYORG Antibody / Myogenesis-regulating glycosidase (FY13117)

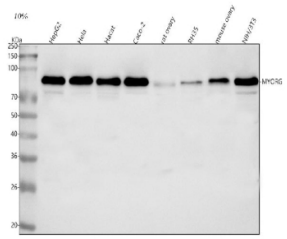
Catalog No.	Formulation	Size
FY13117	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml	100 ug

Bulk quote request

Availability	1-2 days
Species Reactivity	Human, Mouse, Rat
Format	Lyophilized
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	Q6NSJ0
Applications	Western Blot : 0.25-0.5ug/ml Flow Cytometry : 1-3ug/million cells ELISA : 0.1-0.5ug/ml
Limitations	This MYORG antibody is available for research use only.



Flow Cytometry analysis of HepG2 cells using anti-MYORG antibody. Overlay histogram showing HepG2 cells stained with (Blue line). To facilitate intracellular staining, cells were fixed with 4% paraformaldehyde and permeabilized with permeabilization buffer. The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-MYORG antibody (1 ug/million cells) for 30 min at 20oC. DyLight 488 conjugated goat anti-rabbit IgG (5-10 ug/million cells) was used as secondary antibody for 30 minutes at 20oC. Isotype control antibody (Green line) was rabbit IgG (1 ug/million cells) used under the same conditions. Unlabelled sample (Red line) was also used as a control.



Western blot analysis of MYORG using anti-MYORG antibody. Lane 1: human HepG2 whole cell lysates, Lane 2: human Hela whole cell lysates, Lane 3: human Hacat whole cell lysates, Lane 4: human Caco-2 whole cell lysates, Lane 5: rat ovary tissue lysates, Lane 6: rat RH35 whole cell lysates, Lane 7: mouse ovary tissue lysates, Lane 8: mouse NIH/3T3 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-MYORG 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 enhanced chemiluminescent. The expected molecular weight of MYORG is ~81 kDa.

Description

MYORG antibody detects Myogenesis-regulating glycosidase, a lysosomal and endoplasmic reticulum-associated enzyme involved in protein processing and neurological function. The UniProt recommended name is Myogenesis-regulating glycosidase (MYORG). This glycosidase is highly conserved and plays a crucial role in the maintenance of glycoprotein homeostasis within neural tissues, particularly astrocytes.

Functionally, MYORG antibody identifies a 714-amino-acid glycosidase belonging to the glycosyl hydrolase family 31. MYORG hydrolyzes terminal sugar residues from oligosaccharides and glycoproteins, participating in lysosomal degradation and protein quality control. It is mainly localized to the endoplasmic reticulum and perinuclear regions, suggesting involvement in post-translational processing rather than extracellular digestion.

The MYORG gene is located on chromosome 9p13.1 and is highly expressed in brain and skeletal muscle. In the central nervous system, MYORG supports astrocyte differentiation and intercellular communication. It is co-regulated with genes controlling lysosomal activity, endoplasmic reticulum homeostasis, and metabolic signaling.

Pathologically, mutations in MYORG cause primary familial brain calcification (PFBC), a neurodegenerative disorder characterized by calcium deposits in basal ganglia and cerebellum. Deficiency in MYORG leads to altered glycosylation and impaired protein turnover in astrocytes. Research using MYORG antibody assists studies of glycoprotein metabolism, lysosomal function, and neurological disease mechanisms.

MYORG antibody is validated for western blotting, immunofluorescence, and immunohistochemistry to detect intracellular glycosidases and neuronal processing enzymes. NSJ Bioreagents provides MYORG antibody reagents optimized for neuroscience, enzymology, and cellular metabolism research.

Structurally, Myogenesis-regulating glycosidase contains a catalytic domain typical of glycosyl hydrolases with conserved acid-base residues, and a C-terminal transmembrane region anchoring it to intracellular membranes. This antibody supports analysis of MYORG's biochemical function and contribution to neurodegenerative disorders.

Application Notes

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

Immunogen

E.coli-derived human MYORG recombinant protein (Position: Q207-R611) was used as the immunogen for the MYORG antibody.

Storage

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