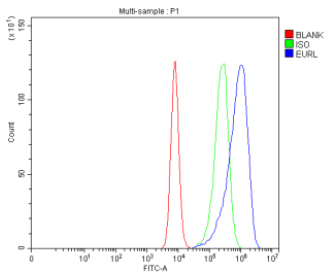
EURL Antibody / Expressed in undifferentiated retina and lens / C21orf91 (FY13182)

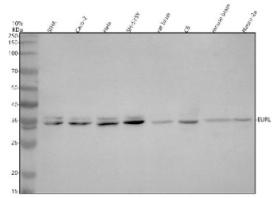
Catalog No.	Formulation	Size
FY13182	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml	100 ug

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	Q9NYK6
Applications	Western Blot: 0.25-0.5ug/ml Flow cytometry: 1-3ug/million cells ELISA: 0.1-0.5ug/ml
Limitations	This EURL antibody is available for research use only.



Flow Cytometry analysis of Caco-2 cells using anti-EURL antibody. Overlay histogram showing Caco-2 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-EURL 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 without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.



Western blot analysis of EURL using anti-EURL antibody. Electrophoresis was performed on a 10% SDS-PAGE gel at 80V (Stacking gel) / 120V (Resolving gel) for 2 hours. Lane 1: human SIHA whole cell lysates, Lane 2: human Caco-2 whole cell lysates, Lane 3: human Hela whole cell lysates, Lane 4: human SH-SY5Y whole cell lysates, Lane 5: rat brain tissue lysates, Lane 6: rat C6 whole cell lysates, Lane 7: mouse brain tissue lysates, Lane 8: mouse NEuro-2a 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-EURL 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. Western blot detection of EURL (C21orf91) shows the expected ~34 kDa band in all samples and a human-restricted doublet with a slightly higher band, consistent with isoform- or phosphorylation-dependent migration.

Description

EURL antibody detects C21orf91 protein, also known as EURL (expressed in undifferentiated retina and lens), a cytoplasmic regulator of neurogenesis and neuronal differentiation. The UniProt recommended name is C21orf91 protein (EURL). This protein contributes to neurodevelopment by modulating the balance between neural progenitor proliferation and differentiation.

Functionally, EURL antibody identifies a 250-amino-acid cytoplasmic protein that interacts with components of the microtubule and actin cytoskeleton to influence cell shape and division. EURL expression is enriched in neural precursor cells, where it controls neuronal lineage specification and cortical development. It also supports early lens and retinal formation during embryogenesis.

The EURL gene is located on chromosome 21q22.12, within the Down syndrome critical region. Its expression in the developing brain suggests a role in cortical layering and synaptic maturation. EURL may also contribute to dosage-sensitive developmental pathways affected by trisomy 21.

Pathologically, altered EURL expression has been associated with neurodevelopmental delay and Down syndrome-related brain abnormalities. Dysregulation affects neuronal migration and axon guidance, leading to impaired neural circuit formation. Research using EURL antibody supports studies in brain development, neurogenetics, and cytoskeletal dynamics.

EURL antibody is validated for western blotting, immunohistochemistry, and immunofluorescence to detect neural differentiation markers. NSJ Bioreagents provides EURL antibody reagents optimized for neurobiology, developmental, and genetic research.

Structurally, C21orf91 protein contains conserved helical motifs that mediate cytoskeletal binding and spatial organization within developing neurons. This antibody enables analysis of EURL's role in neuronal specification and brain morphogenesis.

Application Notes

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

Immunogen

E.coli-derived human EURL recombinant protein (Position: D26-N297) was used as the immunogen for the EURL antibody.

Storage

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

Copyright © NSJ Bioreagents. All rights reserved.