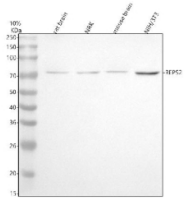
REPS2 Antibody / RalBP1-associated Eps domain-containing protein 2 (FY13205)

Catalog No.	Formulation	Size
FY13205	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	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	Q8NFH8
Applications	Western Blot : 0.25-0.5ug/ml ELISA : 0.1-0.5ug/ml
Limitations	This REPS2 antibody is available for research use only.



Western blot analysis of REPS2 using anti-REPS2 antibody. Electrophoresis was performed on a 10% SDS-PAGE gel at 80V (Stacking gel) / 120V (Resolving gel) for 2 hours. Lane 1: rat brain tissue lysates, Lane 2: rat NRK whole cell lysates, Lane 3: mouse brain tissue lysates, Lane 4: 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-REPS2 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 specific band was detected for REPS2 at approximately 72 kDa. The expected molecular weight of REPS2 is ~72 kDa.

Description

REPS2 antibody detects RalBP1-associated Eps domain-containing protein 2, a signaling adaptor that mediates

endocytosis and receptor trafficking. The UniProt recommended name is RalBP1-associated Eps domain-containing protein 2 (REPS2). This cytoplasmic protein functions in clathrin-mediated endocytosis, growth factor receptor internalization, and signal transduction downstream of small GTPases such as RalA and RalB.

Functionally, REPS2 antibody identifies a 639-amino-acid protein containing EH (Eps15 homology) domains that mediate interactions with endocytic machinery proteins including Eps15, RalBP1, and AP-2. REPS2 contributes to the internalization of epidermal growth factor receptor (EGFR) and other tyrosine kinase receptors, influencing receptor recycling and downregulation. It also participates in the regulation of cytoskeletal dynamics and cell adhesion through Ral GTPase-dependent pathways.

The REPS2 gene is located on chromosome Xp22.3 and is expressed in epithelial tissues, neurons, and endocrine glands. In addition to its role in endocytosis, REPS2 modulates insulin signaling, exocytosis, and vesicular trafficking, providing a link between receptor activation and intracellular transport systems.

Pathologically, aberrant REPS2 expression has been implicated in prostate cancer, breast cancer, and neurological disorders. Overexpression promotes cancer cell migration and survival by sustaining receptor tyrosine kinase signaling, while loss of REPS2 can impair receptor internalization and lead to altered growth factor responsiveness. Research using REPS2 antibody supports studies in membrane trafficking, cell signaling, and tumor progression.

REPS2 antibody is validated for western blotting, immunofluorescence, and immunohistochemistry to detect endocytic adaptor proteins. NSJ Bioreagents provides REPS2 antibody reagents optimized for studies in receptor trafficking, cytoskeletal regulation, and cancer biology.

Structurally, RalBP1-associated Eps domain-containing protein 2 contains N-terminal EH domains, central coiled-coil motifs, and proline-rich regions that mediate protein-protein interactions. These domains form scaffolds for complex assembly with signaling and endocytic components. This antibody enables the analysis of REPS2's role in receptor-mediated endocytosis and signaling modulation.

Application Notes

Optimal dilution of the REPS2 antibody should be determined by the researcher.

Immunogen

E.coli-derived human REPS2 recombinant protein (Position: A76-K564) was used as the immunogen for the REPS2 antibody.

Storage

After reconstitution, the REPS2 antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.