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Anti-NF2 (Merlin) pS518 (RABBIT) Antibody

NF2 phospho S518 Antibody
Catalog # ASR5208

Specification

Anti-NF2 (Merlin) pS518 (RABBIT) Antibody - Product Information

Host	**Rabbit**
Conjugate	**Unconjugated**
Target Species	**Human**
Reactivity	**Mouse**
Clonality	**Polyclonal**
Application	**WB, IHC, E, I, LCI**
Application Note	**This phospho-specific polyclonal antibody was tested by immunoblotting and ELISA. By ELISA, the antibody was found to be reactive with the phosphorylated form of the immunizing peptide and minimally reactive with the non-phosphorylated form of the immunizing peptide. Immunoblotting will detect human and mouse NF2 (Merlin). Although not tested, this antibody is likely functional in Immunofluorescence, immunohistochemistry, and immunoprecipitation.**
Physical State	**Liquid (sterile filtered)**
Buffer	**0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2**
Immunogen	**Human NF2 (Merlin) phospho-peptide corresponding to a region of the human protein surrounding S518 and conjugated to Keyhole Limpet Hemocyanin (KLH).**
Preservative	**0.01% (w/v) Sodium Azide**

Anti-NF2 (Merlin) pS518 (RABBIT) Antibody - Additional Information

Gene ID 4771

Other Names
4771

Purity
This affinity purified antibody is directed against human NF2 (Neurofibromatosis 2 gene product). The product was affinity purified from monospecific antiserum by immunoaffinity chromatography. Antiserum was first purified against the phosphorylated form of the immunizing peptide. The resultant affinity purified antibody was then cross-adsorbed against the non-phosphorylated form of the immunizing peptide. This phospho-specific polyclonal antibody is specific for phosphorylated pS518 of human NF2 (neurofibromatosis 2 gene product). Reactivity with non-phosphorylated Human NF2 (Merlin) is minimal by ELISA. Cross-reactivity with NF2 (Merlin) occurs in mouse tissue. Reactivity with NF2 from other sources has not been determined.

Storage Condition
Store vial at -20° C prior to opening. Aliquot contents and freeze at -20° C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.

Precautions Note
This product is for research use only and is not intended for therapeutic or diagnostic applications.

Anti-NF2 (Merlin) pS518 (RABBIT) Antibody - Protein Information

Name NF2

Synonyms SCH

Function
Probable regulator of the Hippo/SWH (Sav/Wts/Hpo) signaling pathway, a signaling pathway that plays a pivotal role in tumor suppression by restricting proliferation and promoting apoptosis. Along with WWC1 can synergistically induce the phosphorylation of LATS1 and LATS2 and can probably function in the regulation of the Hippo/SWH (Sav/Wts/Hpo) signaling pathway. May act as a membrane stabilizing protein. May inhibit PI3 kinase by binding to AGAP2 and impairing its stimulating activity. Suppresses cell proliferation and tumorigenesis by inhibiting the CUL4A-RBX1-DDB1-VprBP/DCAF1 E3 ubiquitin-protein ligase complex.

Cellular Location
[Isoform 1]: Cell projection, filopodium membrane; Peripheral membrane protein; Cytoplasmic side. Cell projection, ruffle membrane; Peripheral membrane protein; Cytoplasmic side. Nucleus. Note=In a fibroblastic cell line, isoform 1 is found homogeneously distributed over the entire cell, with a particularly strong staining in ruffling membranes and filopodia. Colocalizes with MPP1 in non-myelin-forming Schwann cells. Binds with DCAF1 in the nucleus. The intramolecular association of the FERM domain with the C- terminal tail promotes nuclear accumulation. The unphosphorylated form accumulates predominantly in the nucleus while the phosphorylated form is largely confined to the non-nuclear fractions [Isoform 9]: Cytoplasm, perinuclear region. Cytoplasmic granule. Note=Observed in cytoplasmic granules concentrated in a perinuclear location. Isoform 9 is absent from ruffling membranes and filopodia

Tissue Location
Widely expressed. Isoform 1 and isoform 3 are predominant. Isoform 4, isoform 5 and isoform 6 are expressed moderately. Isoform 8 is found at low frequency. Isoform 7, isoform 9 and isoform 10 are not expressed in adult tissues, with the exception of adult retina expressing isoform 10. Isoform 9 is faintly expressed in fetal brain, heart, lung, skeletal muscle and spleen. Fetal thymus expresses isoforms 1, 7, 9 and 10 at similar levels

Anti-NF2 (Merlin) pS518 (RABBIT) Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation

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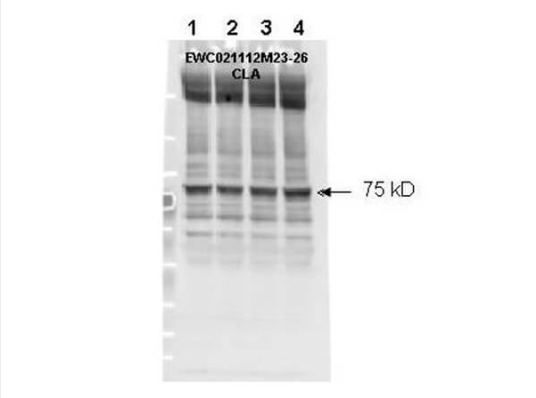
- Flow Cytomety
- Cell Culture

Anti-NF2 (Merlin) pS518 (RABBIT) Antibody - Images



Affinity purified phospho-specific antibody to NF2 (Merlin) at pS518 was used at a 1:1000 dilution to detect NF2 by Western blot. Approximately 12 ul of a mouse cardiac myocyte lysate was loaded per lane on a 4-20% Criterion gel for SDS-PAGE. Samples were either mock treated (lane 1) or CLA treated at 4nM, 20 nM or 100 nM (lanes 2, 3 and 4 respectively) for 45'. After washing, a 1:5,000 dilution of HRP conjugated Gt-a-Rabbit IgG (611-103-122) preceded color development using Amersham's substrate system. Other detection methods will yield similar results.

Anti-NF2 (Merlin) pS518 (RABBIT) Antibody - Background

The recently isolated neurofibromatosis 2 tumor suppressor gene encodes a 595 amino acid protein (Merlin). The protein product Merlin, named for its relatedness to the ezrin, radixin and moesin (ERM) family of proteins, is a tumor suppressor whose absence results in the occurrence of multiple tumors of the nervous system, particularly schwannomas and meningiomas. Merlin's similarity to ERM’s suggests that it might share functions, acting as a link between cytoskeletal components and the cell membrane. The NF2 protein is highly expressed in human fibroblasts and is detected as a single band of about 75kDa. This antibody is specific for the phosphorylated form of human NF2 (Merlin).