

Datasheet for 600-401-414

NF2 phospho S518 Antibody**Overview**

Description:	Anti-NF2 (Merlin) pS518 (RABBIT) Antibody - 600-401-414
Item No.:	600-401-414
Size:	100 µg
Applications:	ELISA, WB, IF, IHC, Multiplex
Reactivity:	Mouse
Host Species:	Rabbit

Product Details

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).
Synonyms:	rabbit anti-NF2 pS518 antibody, rabbit anti-Merlin pS518 antibody, moesin ezrin radixin like protein antibody, Neurofibromatosis 2 antibody, Neurofibromin-2, Schwannomerlin, Schwannomin, Merlin, NF 2, NF-2, SCH
Host Species:	Rabbit
Clonality:	Polyclonal
Format:	IgG

Target Details

Gene Name:	NF2
Reactivity:	Mouse
PTM Specificity:	Phosphorylation
Immunogen Type:	Conjugated Peptide

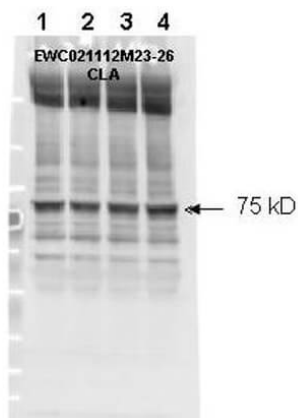
Immunogen:	Human NF2 (Merlin) phospho-peptide corresponding to a region of the human protein surrounding S518 and conjugated to Keyhole Limpet Hemocyanin (KLH).
Purity/Specificity:	This affinity purified antibody is directed against human NF2 (Neurofibromatosis 2 gene product). The product was affinity 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.
Relevant Links:	NCBI - NP_000259 UniProtKB - P35240 GeneID - 4771

Application Details

Tested Applications:	ELISA, WB
Suggested Applications:	IF, IHC, Multiplex (Based on references)
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.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
ELISA:	1:1,200,000
IHC:	User Optimized
WB:	1:500- 1:2,000

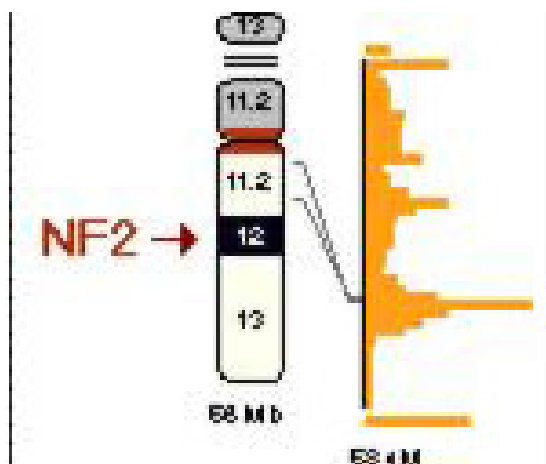
Formulation

Physical State:	Liquid (sterile filtered)
Concentration:	1.0 mg/mL by UV absorbance at 280 nm
Buffer:	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Preservative:	0.01% (w/v) Sodium Azide



Western Blot

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 μ l 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.



Pathway

References

- Mandati V et al. Phosphorylation of Merlin by Aurora A kinase appears necessary for mitotic progression. *J Biol Chem.* (2019)
- Hu et al. An FAK-YAP-mTOR Signaling Axis Regulates Stem Cell-Based Tissue Renewal in Mice. *Cell Stem Cell* (2017)
- Lallemant D, Saint-Amaux AL, Giovannini M. Tumor-suppression functions of merlin are independent of its role as an organizer of the actin cytoskeleton in Schwann cells. *J Cell Sci.* (2009)
- Lu J et al. Compensative shuttling of merlin to phosphorylation on serine 518 in vestibular schwannoma. *Laryngoscope.* (2008)

Disclaimer

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