

**DESCRIPTION**

<b>Species Reactivity</b>	Human
<b>Specificity</b>	Detects human NF2 in Western blots and direct ELISAs.
<b>Source</b>	Polyclonal Goat IgG
<b>Purification</b>	Antigen Affinity-purified
<b>Immunogen</b>	<i>E. coli</i> -derived recombinant human NF2 Met363-Lys578 Accession # P35240
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 µm filtered solution in PBS.

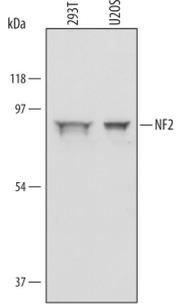
**APPLICATIONS**

**Please Note:** Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

	<b>Recommended Concentration</b>	<b>Sample</b>
<b>Western Blot</b>	1 µg/mL	See Below
<b>Immunocytochemistry</b>	5-15 µg/mL	See Below
<b>Immunohistochemistry</b>	5-15 µg/mL	See Below

**DATA**

**Western Blot**



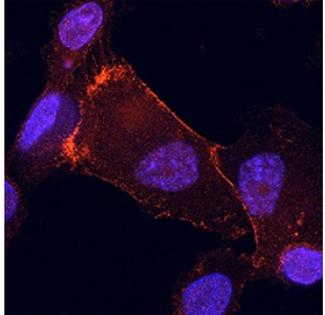
**Detection of Human NF2/Merlin by Western Blot.**  
Western blot shows lysates of 293T human embryonic kidney cell line and U2OS human osteosarcoma cell line. PVDF membrane was probed with 1 µg/mL of Goat Anti-Human NF2/Merlin Antigen Affinity-purified Polyclonal Antibody (Catalog # AF5616) followed by HRP-conjugated Anti-Goat IgG Secondary Antibody (Catalog # HAF109). A specific band was detected for NF2/Merlin at approximately 75 kDa (as indicated). This experiment was conducted under reducing conditions and using [Immunoblot Buffer Group 1](#).

**Immunohistochemistry**



**NF2/Merlin in Human Brain.**  
NF2/Merlin was detected in immersion fixed paraffin-embedded sections of human brain (cerebellum) using Goat Anti-Human NF2/Merlin Antigen Affinity-purified Polyclonal Antibody (Catalog # AF5616) at 10 µg/mL overnight at 4 °C. Before incubation with the primary antibody tissue was subjected to heat-induced epitope retrieval using Antigen Retrieval Reagent-Basic (Catalog # CTS013). Tissue was stained using the Anti-Goat HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # CTS008) and counterstained with hematoxylin (blue). View our protocol for [Chromogenic IHC Staining of Paraffin-embedded Tissue Sections](#).

**Immunocytochemistry**



**NF2/Merlin in SK-HEP-1 Human Cell Line.**  
NF2/Merlin was detected in immersion fixed SK-HEP-1 human liver endothelial cell line using Goat Anti-Human NF2/Merlin Antigen Affinity-purified Polyclonal Antibody (Catalog # AF5616) at 1.7 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Goat IgG Secondary Antibody (red; Catalog # NL001) and counterstained with DAPI (blue). Specific staining was localized to plasma membranes. View our protocol for [Fluorescent ICC Staining of Cells on Coverslips](#).

## PREPARATION AND STORAGE

<b>Reconstitution</b>	Reconstitute at 0.2 mg/mL in sterile PBS.
<b>Shipping</b>	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
<b>Stability &amp; Storage</b>	<b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b> <ul style="list-style-type: none"><li>● 12 months from date of receipt, -20 to -70 °C as supplied.</li><li>● 1 month, 2 to 8 °C under sterile conditions after reconstitution.</li><li>● 6 months, -20 to -70 °C under sterile conditions after reconstitution.</li></ul>

## BACKGROUND

NF2 (Neurofibromin-2; also Merlin) is a 70-75 kDa tumor suppressor protein belonging to the ERM (ezrin, radixin, moesin) family of proteins. It participates in contact-mediated cell adhesion, thereby blocking cell proliferation and migration. Human NF2 is 595 amino acids (aa) in length. It contains three general regions. There is an N-terminal FERM domain (aa 1-302), a  $\alpha$ -helical rod central region (aa 303-478), and a unique carboxy-terminal domain (aa 479-595). Confluence requires an absence of phosphorylation at Ser516 and Ser10. There are multiple potential splice variants. Four short forms less than 260 aa in length lack the aa range used for antigen immunization. There are at least eight additional isoforms that basically show an alternate start site coupled to an 11 aa substitution for aa 579-595. Lack of NF2 is associated with neurofibromatosis type II.