

## DESCRIPTION

|                           |   |
|---------------------------|---|
| <b>Species Reactivity</b> | Human/Mouse/Rat   |
| <b>Specificity</b>        | Detects human, mouse, and rat Sortilin in Western blots.  |
| <b>Source</b>             | Monoclonal Mouse IgG <sub>1</sub> Clone # 334708  |
| <b>Purification</b>       | Protein A or G purified from hybridoma culture supernatant  |
| <b>Immunogen</b>          | Mouse myeloma cell line NS0-derived recombinant human Sortilin Ser78-Asn755<br>Accession # Q99523   |
| <b>Formulation</b>        | Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details.<br>*Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS. |

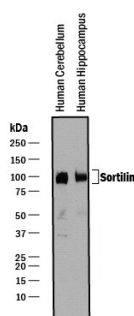
## APPLICATIONS

**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>       | 0.25-1 µg/mL  | See Below     |
| <b>Simple Western</b>     | 10 µg/mL  | See Below     |
| <b>Knockout Validated</b> | Sortilin is specifically detected in HeLa human cervical epithelial carcinoma parental cell line but is not detectable in Sortilin knockout HeLa cell line. |               |

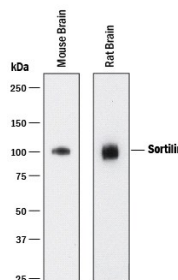
## DATA

### Western Blot



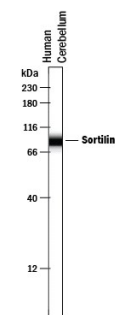
**Detection of Human Sortilin by Western Blot.** Western blot shows lysates of human brain (cerebellum) tissue and human brain (hippocampus) tissue. PVDF membrane was probed with 0.25 µg/mL of Mouse Anti-Human/Mouse/Rat Sortilin Monoclonal Antibody (Catalog # MAB3154) followed by HRP-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # HAF018). A specific band was detected for Sortilin at approximately 95-105 kDa (as indicated). This experiment was conducted under reducing conditions and using [Immunoblot Buffer Group 1](#).

### Western Blot



**Detection of Mouse and Rat Sortilin by Western Blot.** Western blot shows lysates of mouse brain tissue and rat brain tissue. PVDF membrane was probed with 1 µg/mL of Mouse Anti-Human/Mouse/Rat Sortilin Monoclonal Antibody (Catalog # MAB3154) followed by HRP-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # HAF018). A specific band was detected for Sortilin at approximately 100 kDa (as indicated). This experiment was conducted under reducing conditions and using [Immunoblot Buffer Group 1](#).

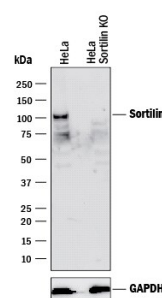
### Simple Western



**Detection of Human Sortilin by Simple Western™.** Simple Western lane view shows lysates of human brain (cerebellum) tissue, loaded at 0.2 mg/mL. A specific band was detected for Sortilin at approximately 87 kDa (as indicated) using 10 µg/mL of Mouse Anti-Human/Mouse/Rat Sortilin Monoclonal Antibody (Catalog # MAB3154). This experiment was conducted under reducing conditions and using the 12-230 kDa separation system.



### Knockout Validated



**Western Blot Shows Human Sortilin Specificity by Using Knockout Cell Line.** Western blot shows lysates of HeLa human cervical epithelial carcinoma parental cell line and Sortilin knockout HeLa cell line (KO). PVDF membrane was probed with 2 µg/mL of Mouse Anti-Human/Mouse/Rat Sortilin Monoclonal Antibody (Catalog # MAB3154) followed by HRP-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # HAF018). A specific band was detected for Sortilin at approximately 100 kDa (as indicated) in the parental HeLa cell line, but is not detectable in knockout HeLa cell line. GAPDH (Catalog # MAB5718) is shown as a loading control. This experiment was conducted under reducing conditions and using [Immunoblot Buffer Group 1](#).

## PREPARATION AND STORAGE

|                                |   |
|--------------------------------|---|
| <b>Reconstitution</b>          | Reconstitute at 0.5 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.<br>*Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C  |
| <b>Stability &amp; Storage</b> | Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <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

Sortilin, also known as neurotensin receptor 3, is a 100 kDa transmembrane receptor that is localized both in the endosomal compartment and on plasma membranes. It contains an extracellular/luminal Vps10p (vacuolar protein-sorting 10 protein) domain and is one of five known members of the mammalian Vps10p-D receptor family. A Sortilin propeptide, cleaved by a furin, blocks premature ligand binding to uncleaved Sortilin and functions as a chaperone to facilitate trafficking in the Golgi compartments. Sortilin binds multiple ligands and has diverse functions. Mature human Sortilin extracellular domain shares 92% and 91% amino acid sequence identity with that of mouse and rat Sortilin, respectively.