2/1/24, 11:31 AM Revision 3

| Revision 3  |                         |  |                         |                               |                        |   |  |
|---|-------------------------|--|-------------------------|-------------------------------|------------------------|---|--|
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| For Research Use Onl  | y. Not for Use in       | Diagnostic Proce   | edures.                 |                               |                        |   |  |
| Applications:<br>WB, W-S, IP  | Reactivity:<br>H M R Mk | Sensitivity:<br>Endogenous   | <b>MW (kDa):</b><br>320 | Source/Isotype:<br>Rabbit IgG | UniProt ID:<br>#P21359 | Entrez-Gene Id:<br>4763                                   |  |
| Broduct Lleago  |                         |  |                         |                               |                        |   |  |
| Product Usage<br>Information  | -                       | Application  |                         |                               | Dilution               |   |  |
| internation   |                         | Western Blotting   |                         |                               |                        | 1:1000<br>1:10 - 1:50                                     |  |
|   |                         | Simple Western™<br>Immunoprecipitation   |                         |                               |                        |   |  |
|   |                         |  |                         |                               | 1:50                   |   |  |
| Storage   | •                       | Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 μg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at –20°C. Do not aliquot the antibody.   |                         |                               |                        |   |  |
| Specificity / Sens  | itivity Neu             | Neurofibromin 1 (D7R7D) Rabbit mAb recognizes endogenous levels of total neurofibromin 1 protein.  |                         |                               |                        |   |  |
| Source / Purificat  |                         | Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Pro360 of human neurofibromin 1 protein.  |                         |                               |                        |   |  |
| Background  |                         | Neurofibromin is a Ras-specific GTPase activating protein (RasGAP), down-regulating Ras signaling (1). Studies have shown, that mutations in <i>NF1</i> inhibit its activity, resulting in benign tumors such as neurofibromas, which may form along nerves throughout the body resulting in neurofibromatosis type 1 (NF1) (2). NF1 is one of the most common autosomal dominant diseases however it remains unclear how mutation of <i>NF1</i> may lead to other features of NF1 (3). In addition, <i>NF1</i> mutations occur in 5-10% of human sporadic malignancies such as glioblastomas, lung adenocarcinomas, melanomas, breast and ovarian cancers, and acute myeloid leukemias. Mutations in <i>NF1</i> can cause resistance to therapies including chemotherapy and radiation therapy (3). |                         |                               |                        |   |  |
| Background References   |                         | <ol> <li>Trovó-Marqui, A.B. and Tajara, E.H. (2006) <i>Clin Genet</i> 70, 1-13.</li> <li>Barker, D. et al. (1987) <i>Science</i> 236, 1100-2.</li> <li>Ratner, N. and Miller, S.J. (2015) <i>Nat Rev Cancer</i> 15, 290-301.</li> </ol>  |                         |                               |                        |   |  |
| Species Reactivit   | <b>y</b> Spec           | Species reactivity is determined by testing in at least one approved application (e.g., western blot).   |                         |                               |                        |   |  |
| Western Blot Buffer   |                         | IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.   |                         |                               |                        |   |  |
| Applications Key  |                         | WB: Western Blotting W-S: Simple Western™ IP: Immunoprecipitation  |                         |                               |                        |   |  |
| Cross-Reactivity  | X: X:                   | <ul> <li>H: human M: mouse R: rat Hm: hamster Mk: monkey Vir: virus Mi: mink C: chicken Dm: D. melanogaster</li> <li>X: Xenopus Z: zebrafish B: bovine Dg: dog Pg: pig Sc: S. cerevisiae Ce: C. elegans Hr: horse</li> <li>GP: Guinea Pig Rab: rabbit All: all species expected</li> </ul>   |                         |                               |                        |   |  |
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Neurofibromin 1 (D7R7D) Rabbit mAb (#14623) Datasheet Without Images Cell Signaling Technology

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