

## DESCRIPTION

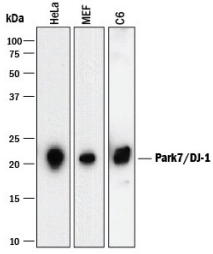
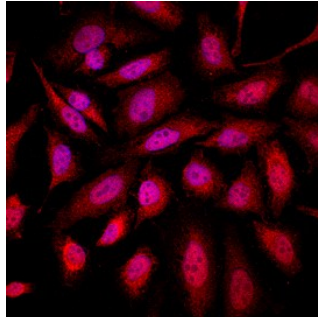
|                           |   |
|---------------------------|---|
| <b>Species Reactivity</b> | Human/Mouse/Rat   |
| <b>Specificity</b>        | Detects human, mouse, and rat PARK-7 in direct ELISAs and Western blots.  |
| <b>Source</b>             | Recombinant Monoclonal Mouse IgG <sub>2A</sub> Clone # 925805R  |
| <b>Purification</b>       | Protein A or G purified from cell culture supernatant   |
| <b>Immunogen</b>          | <i>E. coli</i> -derived recombinant human PARK-7<br>Ala2-Asp189<br>Accession # Q99497   |
| <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 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.

|                            | Recommended Concentration | Sample    |
|----------------------------|---------------------------|-----------|
| <b>Western Blot</b>        | 1 µg/mL                   | See Below |
| <b>Immunocytochemistry</b> | 8-25 µg/mL                | See Below |

## DATA

|   |   |   |
|---|---|---|
| <p><b>Western Blot</b></p>  | <p><b>Detection of Human, Mouse, and Rat Park7/DJ-1 by Western Blot.</b><br/>Western blot shows lysates of HeLa human cervical epithelial carcinoma cell line, MEF mouse embryonic feeder cells, and C6 rat glioma cell line. PVDF membrane was probed with 1 µg/mL of Mouse Anti-Human/Mouse/Rat Park7/DJ-1 Monoclonal Antibody (Catalog # MAB39951) followed by HRP-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # HAF018). A specific band was detected for Park7/DJ-1 at approximately 22 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.</p> | <p><b>Immunocytochemistry</b></p>  <p><b>Park7/DJ-1 in HeLa Human Cell Line.</b><br/>Park7/DJ-1 was detected in immersion fixed HeLa human cervical epithelial carcinoma cell line using Mouse Anti-Human/Mouse/Rat Park7/DJ-1 Monoclonal Antibody (Catalog # MAB39951) at 10 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Mouse IgG Secondary Antibody (red; Catalog # NL007) and counterstained with DAPI (blue). Specific staining was localized to cytoplasm and nuclei. View our protocol for <a href="#">Fluorescent ICC Staining of Cells on Coverslips</a>.</p> |
|---|---|---|

## 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> | <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

Park7, also known as DJ-1, is a cytoplasmic protein that belongs to the ThiJ/Pfp1/DJ-1 superfamily of highly conserved proteins that function as protein chaperones, catalases, proteases and kinases. Park7 is widely expressed in the brain as well as in peripheral tissues. It exists as a homodimer that can be localized in the cytoplasm, nucleus and mitochondria. Park7 is a redox-sensitive protein that has been ascribed various functions including that as a redox sensor and antioxidant protein. Mutations in Park7 are associated with a small percentage of hereditary early onset Parkinson's disease. Human and mouse Park7 share 92% amino acid sequence identity.