

## DESCRIPTION

<b>Species Reactivity</b>	Human/Mouse
<b>Specificity</b>	Detects human and mouse Park7/DJ-1 in direct ELISAs and Western blots.
<b>Source</b>	Polyclonal Goat IgG
<b>Purification</b>	Antigen Affinity-purified
<b>Immunogen</b>	<i>E. coli</i> -derived recombinant mouse Park7/DJ-1 Ala2-Asp189 Accession # Q99LX0
<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 either lyophilized or as a 0.2 µm filtered solution in PBS.

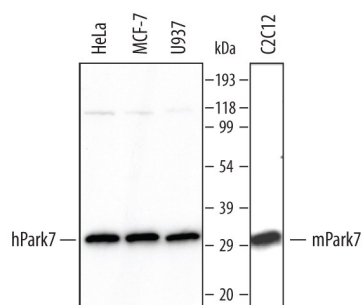
## APPLICATIONS

**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>	0.5 µg/mL	See Below
<b>Immunocytochemistry</b>	5-15 µg/mL	See Below
<b>Knockout Validated</b>	Park7/DJ-1 is specifically detected in HEK293T human embryonic kidney parental cell line but is not detectable in Park7/DJ-1 knockout HEK293T cell line.	

## DATA

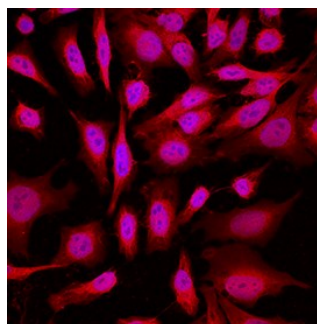
### Western Blot



#### Detection of Human/Mouse Park7/DJ-1 by Western Blot.

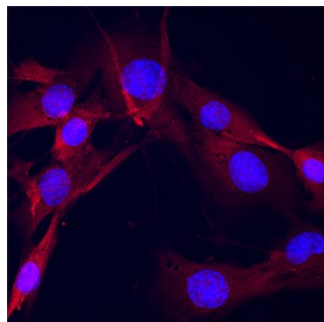
Western blot shows lysates of HeLa human cervical epithelial carcinoma cell line, MCF-7 human breast cancer cell line, U937 human histiocytic lymphoma cell line, and C2C12 mouse myoblast cell line. PVDF membrane was probed with 0.5 µg/mL of Human/Mouse Park7/DJ-1 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF3668) followed by HRP-conjugated Anti-Goat IgG Secondary Antibody (Catalog # HAF019). A specific band was detected for Park7/DJ-1 at approximately 30 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

### Immunocytochemistry



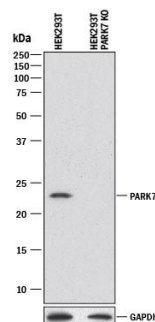
**Park7/DJ-1 in HeLa Human Cell Line.** Park7/DJ-1 was detected in immersion fixed HeLa human cervical epithelial carcinoma cell line using Goat Anti-Human/Mouse Park7/DJ-1 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF3668) at 10 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Goat IgG Secondary Antibody (red; Catalog # Catalog # NL001) and counterstained with DAPI (blue). Specific staining was localized to cytoplasm. View our protocol for [Fluorescent ICC Staining of Cells on Coverslips](#).

## Immunocytochemistry



**Park7/DJ-1 in C2C12 Mouse Cell Line.** Park7/DJ-1 was detected in immersion fixed C2C12 mouse myoblast cell line using Goat Anti-Human/Mouse Park7/DJ-1 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF3668) at 15 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 cytoplasm. Staining was performed using our protocol for Fluorescent ICC Staining of Non-adherent Cells.

## Knockout Validated



**Western Blot Shows Human Park7/DJ-1 Specificity by Using Knockout Cell Line.** Western blot shows lysates of HEK293T human embryonic kidney parental cell line and Park7 knockout HEK293T cell line (KO). PVDF membrane was probed with 0.5 µg/mL of Goat Anti-Human/Mouse Park7/DJ-1 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF3668) followed by HRP-conjugated Anti-Goat IgG Secondary Antibody (Catalog # HAF017). A specific band was detected for Park7/DJ-1 at approximately 23 kDa (as indicated) in the parental HEK293T cell line, but is not detectable in knockout HEK293T cell line. GAPDH (Catalog # AF5718) 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 0.2 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

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.