RD SYSTEMS a biotechne brand

Monoclonal Rat IgG_{2A} Clone # 421015 Catalog Number: MAB3995

DESCRIPTION

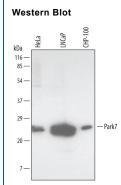
DESCRIPTION	
Species Reactivity	Human
Specificity	Detects endogenous human Park7 in Western blots.
Source	Monoclonal Rat IgG _{2A} Clone # 421015
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	<i>E. coli</i> -derived recombinant human Park7 Met1-Asp189 Accession # Q99497
Formulation	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.

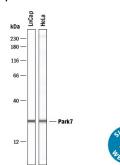
	Recommended Concentration	Sample
Western Blot	0.5 μg/mL	See Below
Simple Western	25 µg/mL	LNCaP human prostate cancer cell line and HeLa human cervical epithelial carcinoma cell line
Knockout Validated	Park7/DJ-1 is specifically detected in HEK293T human embryonic kidney parental cell line but is not detectable in Park7/DJ-1 knockout HEK293T cell line.	

DATA

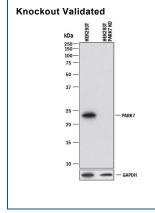


Detection of Human Park7/DJ-1 by Western Blot. Western blot shows lysates of HeLa human cervical epithelial carcinoma cell line, LNCaP human prostate cancer cell line, and CHP-100 human neuroblastoma cell line. PVDF membrane was probed with 0.5 µg/mL of Human Park7/DJ-1 Monoclonal Antibody (Catalog # MAB3995) followed by HRP-conjugated Anti-Rat IgG Secondary Antibody (Catalog # Catalog # HAF005). A specific band was detected for Park7/DJ-1 at approximately 23 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

Simple Western



Detection of Human Park7/DJ-1 by Simple Western ^M. Simple Western lane view shows lysates of LNCaP human prostate cancer cell line and HeLa human cervical epithelial carcinoma cell line, loaded at 0.2 mg/mL. A specific band was detected for Park7/DJ-1 at approximately 26 kDa (as indicated) using 25 µg/mL of Rat Anti-Human Park7/DJ-1 Monoclonal Antibody (Catalog # MAB3995). This experiment was conducted under reducing conditions and using the 12-230 kDa separation system.



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 Rat Anti-Human Park7/DJ-1 Monoclonal Antibody (Catalog # MAB3995) followed by HRP-conjugated Anti-Rat IgG Secondary Antibody (Catalog # Catalog # HAF005). 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 # Catalog # MAB5718) is shown as a loading control. This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

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Human Park7/DJ-1 Antibody

Monoclonal Rat IgG_{2A} Clone # 421015 Catalog Number: MAB3995



PREPARATION AND STORAGE		
Reconstitution	Reconstitute at 0.5 mg/mL in sterile PBS.	
Shipping	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	
Stability & Storage	 Use a manual defrost freezer and avoid repeated freeze-thaw cycles. 12 months from date of receipt, -20 to -70 °C as supplied. 1 month, 2 to 8 °C under sterile conditions after reconstitution. 6 months, -20 to -70 °C under sterile conditions after reconstitution. 	

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.

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