

Store at
-20°C

#88652

DJ-1 (D29E5) XP[®] Rabbit mAb (HRP Conjugate)

Cell Signaling
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UniProt ID #Q99497

New 05/18

For Research Use Only. Not For Use In Diagnostic Procedures.**Applications**
W
Endogenous**Species Cross-Reactivity***
H, M, R, Hm, Mk**Molecular Wt.**
22 kDa**Isotype**
Rabbit IgG

Description: This Cell Signaling Technology antibody is conjugated to the carbohydrate groups of horseradish peroxidase (HRP) via its amine groups. The HRP conjugated antibody is expected to exhibit the same species cross-reactivity as the unconjugated DJ-1 (D29E5) XP[®] Rabbit mAb #5933.

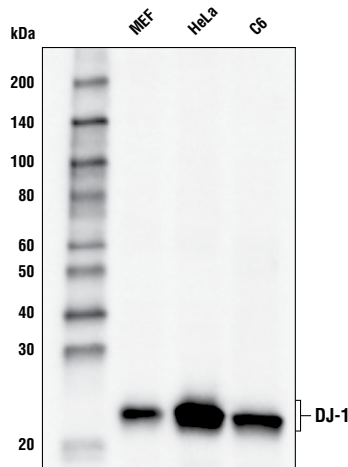
Background: Parkinson's disease (PD) is characterized by the presence of Lewy bodies (intracellular inclusions) and by the loss of dopaminergic neurons. Research studies have shown that mutations in α -synuclein, Parkin, and DJ-1 are linked to PD (1). α -synuclein is a major component of the aggregates found in Lewy bodies. Parkin is involved in protein degradation through the ubiquitin-proteasome pathway, and investigators have shown that mutations in Parkin cause early onset of PD (1). Loss-of-function mutations in DJ-1 cause early onset of PD, but DJ-1 is associated with multiple functions: it cooperates with Ras to increase cell transformation, it positively regulates transcription of the androgen receptor, and it may function as an indicator of oxidative stress (2-5). Dopamine D2 receptor-mediated functions are greatly impaired in DJ-1 (-/-) mice, resulting in reduced long-term depression (6).

Background References:

- (1) Borrelli, E. (2005) *Neuron* 45, 479-81.
- (2) Bonifati, V. et al. (2003) *Science* 299, 256-9.
- (3) Nagakubo, D. et al. (1997) *Biochem. Biophys. Res. Commun.* 231, 509-13.
- (4) Takahashi, K. et al. (2001) *J. Biol. Chem.* 276, 37556-63.
- (5) Mitsumoto, A. and Nakagawa, Y. (2001) *Free Radic. Res.* 35, 885-93.
- (6) Goldberg, M.S. et al. (2005) *Neuron* 45, 489-96.

Specificity/Sensitivity: DJ-1 (D29E5) XP[®] Rabbit mAb (HRP Conjugate) recognizes endogenous levels of total DJ-1 protein.

Source/Purification: Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Lys148 of human DJ-1 protein.



Western blot analysis of extracts from MEF, HeLa, and C6 cells using DJ-1 (D29E5) XP[®] Rabbit mAb (HRP Conjugate).

Storage: Supplied in 136 mM NaCl, 2.6 mM KCl, 12 mM sodium phosphate (pH 7.4) dibasic, 2 mg/ml BSA, and 50% glycerol. Store at -20°C. Do not aliquot the antibody.

***Species cross-reactivity is determined by western blot using the unconjugated antibody.**

Recommended Antibody Dilutions:

Western blotting

1:1000

For product specific protocols and a complete listing of recommended companion products please see the product web page at www.cellsignal.com.

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IMPORTANT: For western blots, incubate membrane with diluted antibody in 5% w/v BSA, 1X TBS, 0.1% Tween[®]20 at 4°C with gentle shaking, overnight.

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Applications: W—Western IP—Immunoprecipitation IHC—Immunohistochemistry ChIP—Chromatin Immunoprecipitation IF—Immunofluorescence F—Flow cytometry E-P—ELISA-Peptide **Species Cross-Reactivity:** H—human M—mouse R—rat Hm—hamster Mk—monkey Mi—mink C—chicken Dm—D. melanogaster X—Xenopus Z—zebrafish B—bovine Dg—dog Pg—pig Sc—S. cerevisiae Ce—C. elegans Hr—Horse All—all species expected **Species** enclosed in parentheses are predicted to react based on 100% homology.