

Datasheet: HCA024

Description:	HUMAN ANTI HUMAN DJ-1 (OXIDIZED AT C106)
Specificity:	DJ-1 (OXIDIZED AT C106)
Other names:	PARK7
Format:	Purified
Product Type:	Monoclonal Antibody
Clone:	AbD03055
Isotype:	HuCAL Fab bivalent
Quantity:	0.1 mg

Product Details

Applications

This product has been reported to work in the following applications. This information is derived from testing within our laboratories, peer-reviewed publications or personal communications from the originators. Please refer to references indicated for further information. For general protocol recommendations, please visit www.bio-rad-antibodies.com/protocols.

	Yes	No	Not Determined	Suggested Dilution
Immunohistology - Frozen			■	
Immunohistology - Paraffin			■	
ELISA	■			
Immunoprecipitation			■	
Western Blotting	■			

Where this product has not been tested for use in a particular technique this does not necessarily exclude its use in such procedures. Suggested working dilutions are given as a guide only. It is recommended that the user titrates the product for use in their own system using appropriate negative/positive controls.

Target Species	Human
Product Form	A bivalent human recombinant Fab (lambda light chain) selected from the HuCAL® GOLD phage display library. Expressed in <i>E. coli</i> and purified using NiNTA affinity chromatography. This Fab fragment is dimerized via a helix-turn-helix motif. The antibody is tagged with a myc-tag (EQKLISEEDL) and a his-tag (HHHHHH) at the C-terminus of the antibody heavy chain.
Preparation	Metal chelate affinity chromatography.
Buffer Solution	Phosphate buffered saline
Preservative Stabilisers	0.01% Thiomersal
Approx. Protein Concentrations	Antibody concentration 0.5 mg/ml
Immunogen	DJ-1 peptide oxidized at C106 (sequence LIAAIC(SO3)AGPTA).

**External Database
Links**

UniProt:

[Q99497](#) [Related reagents](#)

Entrez Gene:

[11315](#) PARK7 [Related reagents](#)

Specificity

Human anti Human DJ-1 antibody, clone 3055 recognizes the human DJ-1 oncogene only when it is oxidized on cysteine C106. DJ-1 plays roles in transcriptional regulation and reaction to anti-oxidative stress. The oxidation status of DJ-1, particularly at C106, modulates the function of DJ-1 ([Canet-Avilés *et al.* 2004](#)). De-regulation of DJ-1 oxidation appears to be connected to the onset of conditions such as Parkinson's Disease ([Abou-Sleiman *et al.* 2003](#)).

References

1. Ooe, H. *et al.* (2006) Establishment of specific antibodies that recognize C106-oxidized DJ-1. [Neurosci Lett. 404 \(1-2\): 166-9.](#)
2. Shadrach KG *et al.* (2013) DJ-1-dependent regulation of oxidative stress in the retinal pigment epithelium (RPE). [PLoS One. 8 \(7\): e67983.](#)
3. Andres-Mateos, E. *et al.* (2007) DJ-1 gene deletion reveals that DJ-1 is an atypical peroxiredoxin-like peroxidase. [Proc Natl Acad Sci U S A. 104 \(37\): 14807-12.](#)
4. Bitar, M.S. *et al.* (2012) Decline in DJ-1 and decreased nuclear translocation of Nrf2 in Fuchs endothelial corneal dystrophy. [Invest Ophthalmol Vis Sci. 53 \(9\): 5806-13.](#)
5. Zhang C *et al.* (2008) Role of NonO-histone interaction in TNFalpha-suppressed prolyl-4-hydroxylase alpha1. [Biochim Biophys Acta. 1783 \(8\): 1517-28.](#)
6. Kim, J. *et al.* (2015) DJ-1 protects against undernutrition-induced atrophy through inhibition of the MAPK-ubiquitin ligase pathway in myoblasts. [Life Sci. 143: 50-7.](#)

Storage

Store at +4°C or at -20°C if preferred.
Storage in frost-free freezers is not recommended.
This product should be stored undiluted. Avoid repeated freezing and thawing as this may denature the antibody. Should this product contain a precipitate we recommend microcentrifugation before use.

Shelf Life

12 months from date of despatch.

Acknowledgements

Sold under license of U.S. Patents 6753136, 7785859 and 8273688 and corresponding patents. By purchasing this product, you agree that your Name and Affiliation will be sent to Dr. Ariga, Hokkaido University, who first published this antibody in the journal Neuroscience Letters (Vol. 404, pp.166-169, 2006).

**Health And Safety
Information**

Material Safety Datasheet documentation available at:
Material Safety Datasheet Documentation #10094 available at:
<https://www.bio-rad-antibodies.com/uploads/MSDS/10094.pdf>

Licensed Use

For in vitro research purposes only, unless otherwise specified in writing by Bio-Rad.

Regulatory

For research purposes only

Technical Advice

Recommended protocols and further information about HuCAL recombinant antibody technology can be found in the [HuCAL Antibodies Technical Manual](#)

Related Products

Recommended Secondary Antibodies

Mouse Anti Synthetic Peptide HISTIDINE TAG (MCA5995...) [HRP](#)

Mouse Anti Human C-MYC (MCA2200...) [HRP](#)

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'M304895:170420'

Printed on 10 Nov 2017

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