

## DJ-1 Monoclonal Antibody (3E8)

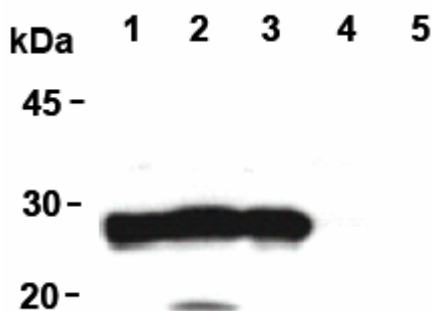
Product Specifications	
<b>Catalog Number:</b>	KAM-SA100
<b>Host:</b>	Mouse
<b>Isotype:</b>	IgG <sub>1</sub>
<b>Species Reactivity:</b>	Human
<b>Applications:</b> <i>The optimal dilution for a specific application must be determined by the investigator</i>	<b>WB (ECL)<sup>7</sup>:</b> 1-10 µg/mL
<b>Predicted m.w.:</b>	~28 kDa
<b>Concentration:</b>	See product label
<b>Purification:</b>	Protein A Affinity
<b>Format:</b>	PBS, pH 7.2, and 50% glycerol
<b>Storage:</b> <i>Shipping conditions may differ from the recommended storage temperature</i>	Store at -20°C
<b>Immunogen:</b>	Recombinant human DJ-1 protein
<b>Related Products:</b>	
LYC-HL100	HeLa Cell Lysate
MSA-110	Myc-tag Monoclonal Antibody (PL14)

### Background:

Researchers cloned DJ-1 protein, consisting of 189 amino acids, from a HeLa cell cDNA library as a novel oncogene which weakly transformed NIH3T3 cells. Cotransfection with ras or c-myc enhances transformation by DJ-1<sup>1</sup>. DJ-1 expression is induced by growth signals, and it is translocated from the cytoplasm to the nucleus during the S phase without the presence of any nuclear localization signals. In addition to its potential involvement in ras-mediated signal transduction pathways, DJ-1 is known to regulate transcription of androgen-responsive genes, and is sensitive to oxidative stress<sup>1-4</sup>. DJ-1 is ubiquitously expressed in various human tissues including the brain, with high expression in astrocytes of the frontal cortex and substantia nigra<sup>5</sup>. Homozygous mutations in the DJ-1 gene have been shown to cause early-onset autosomal recessive Parkinson's disease<sup>6</sup>.

#### References:

1. Nagakubo, D., *et al.* (1997) *Biochem Biophys Res Commun.* **231**, 509-513.
2. Takahashi, K., *et al.* (2001) *J Biol Chem.* **276**, 37556-37563.
3. Mitsumoto, A., *et al.* (2001) *Free Radic Res.* **35**, 885-893.
4. Mitsumoto, A., *et al.* (2001) *Free Radic Res.* **35**, 301-310.
5. Bandopadhyay, R., *et al.* (2004) *Brain* **127**, 420-430.
6. Bonifati, V., *et al.* (2003) *Science* **299**, 256-259.
7. Le Naour, F., *et al.* (2001) *Clin Cancer Res* **7**, 3328-3335.



Western blot analysis of Jurkat (1), Raji (2), HeLa (3), NIH/3T3 (4) and PC12 (5) using DJ-1 Monoclonal Antibody (3E8)

**FOR RESEARCH USE ONLY; NOT FOR THERAPEUTIC OR DIAGNOSTIC USE**

5777 Hines Drive • Ann Arbor, MI • 48108 | Tel: 800-833-8651 or 800-668-6113 | Fax: 734-668-2793  
[www.assaydesigns.com](http://www.assaydesigns.com) | [orders@assaydesigns.com](mailto:orders@assaydesigns.com) | [technical@assaydesigns.com](mailto:technical@assaydesigns.com)

Last Revised: 5/22/2008