



Rabbit antibody to Parkin (295-311): whole serum

Catalogue No.:	R-114-100
Description:	<p>FUNCTION: Functions within a multiprotein E3 ubiquitin ligase complex, catalyzing the covalent attachment of ubiquitin moieties onto substrate proteins. These substrates include SYT11, CCNE1, GPR37, STUB1, a 22 kDa O-linked glycosylated isoform of SNCAIP and SEPT5. May play a more general role in the ubiquitin proteasomal pathway by participating in the removal and/or detoxification of abnormally folded or damaged protein. Loss of this ubiquitin ligase activity appears to be the mechanism underlying pathogenesis of PARK2. May protect neurons against alpha synuclein toxicity, proteasomal dysfunction, GPR37 accumulation, and kainate-induced excitotoxicity. May play a role in controlling neurotransmitter trafficking at the presynaptic terminal and in calcium-dependent exocytosis. Regulates cyclin E during neuronal apoptosis. May represent a tumor suppressor gene. SUBCELLULAR LOCATION: Cytoplasm. Co-localizes with STY11 in neurites. Co-localizes with SNCAIP in brainstem Lewy bodies. TISSUE SPECIFICITY: Highly expressed in the brain including the substantia nigra. Expressed in heart, testis and skeletal muscle. Expression is down-regulated or absent in tumor biopsies, and absent in the brain of PARK2 patients. Overexpression protects dopamine neurons from kainate-mediated apoptosis.</p>
Batch No.:	See product label
Unit size:	100 µl
Antigen:	A synthetic peptide (NSLIKELHHFRILGEEQ) as part of human Parkin conjugated to KLH has been used as the immunogen.
Other Names:	Ubiquitin E3 ligase PRKN; Parkinson juvenile disease protein 2; Parkinson disease protein 2; PARK2; PRKN
Accession:	PRKN2_HUMAN
Produced in:	Rabbit
Purity:	Whole serum
Applications:	IHC, WB. A dilution of 1:1000 is recommended for immunohistochemistry and 1:2000 for western blot. Nice staining is achieved in neuronal and cytoplasmic granules sections treated with citrate buffer for antigen retrieval. Few inclusions are stained but these were not positively identified as Lewy bodies. Biosensis recommends optimal dilutions/concentrations should be determined by the end user.
Specificity:	This antiserum is known to be highly specific for Parkin shown by IHC and WB.
Cross-reactivity:	This antibody is known to react with rat and human Parkin.
Form:	Lyophilised
Reconstitution:	Reconstitute in 100 µl of sterile water. Centrifuge to remove any insoluble material.
Storage:	After reconstitution keep aliquots at -20°C for a higher stability, and at 4°C with an appropriate antibacterial agent. Glycerol (1:1) may be added for an additional stability. Avoid repetitive freeze/thaw cycles.
Expiry Date:	12 months after purchase

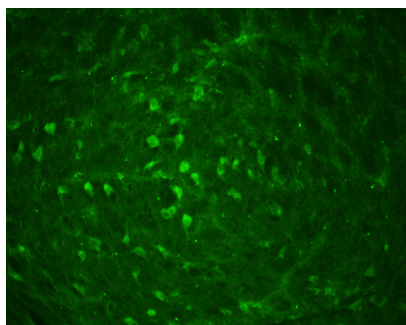
FOR RESEARCH USE ONLY



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- Specific References:**
1. Song Y. J. C. et al (2009). Degeneration in different parkinsonian syndromes relates to astrocyte type and astrocyte protein expression. *J. Neuropathol. Exp. Neurol.* Oct 2009;68(10):1073-1083
 2. Huang Y. et al (2008). LRRK2 and parkin immunoreactivity in multiple system atrophy inclusions. *Acta Neuropathol.* 2008 Dec;116(6):639-46.

- References:**
1. Hottori et al. (1998) *Biochem Biophys Res Commun.* 249 (3): 754-758
 2. Kitada et al. (1998). *Nature.* 392: 605-608
 3. Kumru, H., et al., *Ann. Neurol.* 56(4):599-603 (2004).
 4. Pigullo, S., et al., *Parkinsonism Relat. Disord.* 10(6):357-362 (2004).
 5. Yao, D., et al., *Proc. Natl. Acad. Sci. U.S.A.* 101(29):10810-10814 (2004).
 6. West, A.B., et al., *J. Biol. Chem.* 279(28):28896-28902 (2004).
 7. Wang, F., et al., *Genes Chromosomes Cancer* 40(2):85-96 (2004).



Immunofluorescent visualization of Parkin immunoreactive neurons in the substantia nigra and some in the red nuclei of the mid brain. R-114-100 was diluted 1;500. Photo courtesy of Dr. Sumit Sarkar, National Center for Toxicology/ US FDA, Arkansas, USA.

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