

Purified anti-LRRK2 Antibody (Previously Covance catalog# SIG-39840)

Catalog# / Size	808201 / 100 µL
Clone	MC.028.83.76.242
Other Names	Leucine-rich repeat serine/threonine-protein kinase 2, augmented in rheumatoid arthritis 17, AURA17, DARDARIN, PARK8, RIPK7, ROCO2
Previously	Covance Catalog# SIG-39840
Isotype	Mouse IgG1
Description	Leucine-rich repeat kinase 2 (LRRK2), is a member of the leucine-rich repeat kinase family. This protein also functions as a GTPase. Proteins with leucine-rich regions play a role in protein-protein interactions and mediate assembly of the cell's structural framework (cytoskeleton). Mutations in LRRK2 genes have been associated with late-onset Parkinson's disease.

Product Details

Reactivity	Human
Antibody Type	Monoclonal
Host Species	Mouse
Immunogen	This monoclonal antibody was raised against a peptide immunogen comprising amino acids 2069-2087 of the LRRK2 protein in mice that did not express endogenous LRRK2 protein.
Formulation	Phosphate-buffered solution.
Preparation	The antibody was purified by affinity chromatography.
Concentration	1 mg/ml
Storage & Handling	The antibody solution should be stored undiluted between 2°C and 8°C. Please note the storage condition for this antibody has been changed from -20°C to between 2°C and 8°C. You can also check your vial or your CoA to find the most accurate storage condition for this antibody.
Application	IHC-P - <i>Quality tested</i> Direct ELISA - <i>Validated</i>
Recommended Usage	Each lot of this antibody is quality control tested by formalin-fixed paraffin-embedded immunohistochemical staining. For immunohistochemistry, a concentration of 25 µg/mL is suggested. For Direct ELISA, a concentration range of 1.0 - 10 µg/mL is suggested. It is recommended that the reagent be titrated for optimal performance for each application.
Application Notes	This antibody was generated with support from The Michael J. Fox Foundation. The Michael J. Fox Foundation is dedicated to finding a cure for Parkinson's disease through an aggressively funded research agenda and to ensuring the development of improved therapies for those living with Parkinson's today. To learn more about MJFF, please visit www.michaeljfox.org .
RRID	AB_2564739 (BioLegend Cat. No. 808201)

Antigen Details

Structure	This gene is a member of the leucine-rich repeat kinase family and is encoded by the PARK8 gene. The protein is present mainly in the cytoplasm but can be associated with the mitochondrial outer membrane.
Distribution	Tissue distribution: Lung, Kidney, parathyroid gland, CNS Cellular distribution: cytoplasm, mitochondrion, nucleus, endoplasmic reticulum, lysosome, Golgi apparatus, endosome
Function	LRRK2 interacts with the C-terminal R2 RING finger domain of parkin. LRRK2 positively regulates autophagy through a calcium-dependent activation of the CaMKK/AMPK signaling pathway. Mutations in this gene have been associated with Parkinson disease.

Biology Area Cell Biology, Mitochondrial Function, Neuroinflammation, Neuroscience, Neuroscience Cell Markers

Molecular Family Mitochondrial Markers

Antigen References

1. Paisán-Ruiz C, et al. 2004. *Neuron*. 44(4):595-600.
2. Alegre-Abarrategui J, et al. 2009. *Hum. Mol. Genet.* 18(21):4022-34.
3. Gómez-Suaga P, et al. 2012. *Hum. Mol. Genet.* 21(3):511–25.
4. Orenstein SJ, et al. 2013. *Nat. Neurosci.* 16(4):394–406.
5. Cherra SJ, et al. 2013. *Am. J. Pathol.* 182(2):474–84.

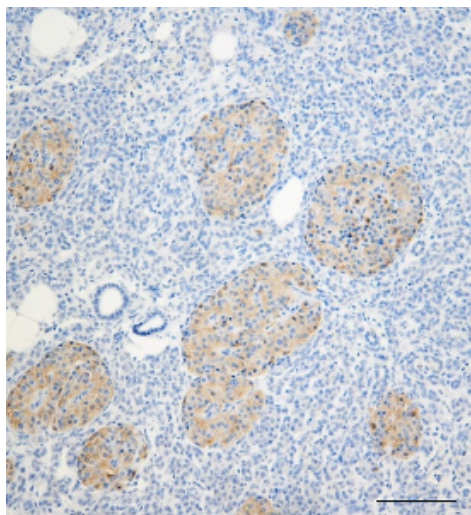
Gene ID 120892

Related Protocols

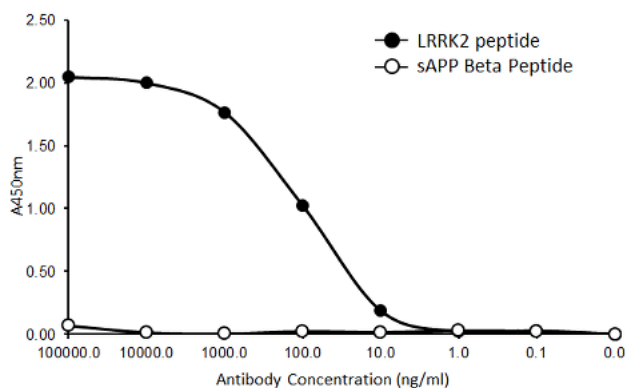
[Sandwich ELISA Protocol](#)

[Immunohistochemistry Protocol for Paraffin-Embedded Sections](#)

Product Data



IHC staining of purified anti-LRRK2 antibody (clone MC.028.83.76.242) on the formalin-fixed paraffin-embedded human pancreas tissue. Following antigen retrieval using Sodium Citrate H.I.E.R., the tissue was incubated with 25 µg/mL of the primary antibody for 60 minutes at room temperature. BioLegend's Ultra-Streptavidin (USA) HRP kit (Multi-Species, DAB, Cat. No. 929901) was used for detection followed by hematoxylin counterstaining, according to the protocol provided. The image was captured with a 40X objective. Scale bar: 50 µm



Direct ELISA of purified anti-LRRK2 antibody (clone MC.028.83.76.242). Wells were coated with 100 ng of plate-immobilized recombinant human LRRK2 peptide or sAPP Beta peptide. The wells were then incubated with the primary antibody at 37°C for 60 minutes, followed by incubation with the horseradish peroxidase labeled goat anti-mouse secondary antibody. TMB (3, 3', 5, 5' tetramethylbenzidine, Cat. No. 421501) was used as the detection system.

For research use only. Not for diagnostic use. Not for resale. BioLegend will not be held responsible for patent infringement or other violations that may occur with the use of our products.

*These products may be covered by one or more Limited Use Label Licenses (see the BioLegend Catalog or our website, www.biolegend.com/ordering#license). BioLegend products may not be transferred to third parties, resold, modified for resale, or used to manufacture commercial products, reverse engineer functionally similar materials, or to provide a service to third parties without written approval of BioLegend. By use of these products you accept the terms and conditions of all applicable Limited Use Label Licenses. Unless otherwise indicated, these products are for research use only and are not intended for human or animal diagnostic, therapeutic or commercial use.

8999 BioLegend Way, San Diego, CA 92121 www.biolegend.com
Toll-Free Phone: 1-877-Bio-Legend (246-5343) Phone: (858) 768-5800 Fax: (877) 455-9587