LRRK2 (M-300): sc-66954

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BACKGROUND

Parkinson's disease is a disorder of movement, cognition and emotion. It is characterized pathologically by neuronal degeneration with Lewy bodies, which are cytoplasmic inclusion bodies containing deposits of aggregated proteins. Mutations in the leucine-rich repeat kinase 2 gene (LRRK2) cause autosomal-dominant Parkinsonism with clinical features of Parkinson's disease and with pleomorphic pathology including deposits of aggregated protein. The LRRK2 protein consists of multiple domains and belongs to the Roco family, a novel group of the Ras/GTPase superfamily. Besides the GTPase (Roc) domain, it contains a predicted kinase domain, with homology to MAP kinase kinase kinases. LRRK2 is localized in the cytoplasm and is associated with cellular membrane structures. The purified LRRK2 protein demonstrates autokinase activity.

REFERENCES

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2. Mata, I.F., et al. 2005. LRRK2 pathogenic substitutions in Parkinson's disease. Neurogenetics 6: 171-177.

3. Foroud, T., et al. 2005. LRRK2: both a cause and a risk factor for Parkinson disease? Neurology 65: 664-665.

4. Paisan-Ruiz, C., et al. 2005. LRRK2 gene in Parkinson disease: mutation analysis and case control association study. Neurology 65: 696-700.

5. Farrer, M., et al. 2005. LRRK2 mutations in Parkinson disease. Neurology 65: 738-740.

6. Kachergus, J., et al. 2005. Identification of a novel LRRK2 mutation linked to autosomal dominant parkinsonism: evidence of a common founder across European populations. Am. J. Hum. Genet. 76: 672-680.

7. Bonifati, V., et al. 2005. Genetics of Parkinson's disease. Minerva Med. 96: 175-186.

CHROMOSOMAL LOCATION

Genetic locus: LRRK2 (human) mapping to 12q12; Lrrk2 (mouse) mapping to 15 E3.

SOURCE

LRRK2 (M-300) is a rabbit polyclonal antibody raised against amino acids 2228-2527 mapping at the C-terminus of LRRK2 of mouse origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS

LRRK2 (M-300) is recommended for detection of LRRK2 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for LRRK2 siRNA (h): sc-45380, LRRK2 siRNA (m): sc-45750, LRRK2 shRNA Plasmid (h): sc-45380-SH, LRRK2 shRNA Plasmid (m): sc-45750-SH, LRRK2 shRNA (h) Lentiviral Particles: sc-45380-V and LRRK2 shRNA (m) Lentiviral Particles: sc-45750-V.

Molecular Weight of LRRK2: 280 kDa.

Positive Controls: EOC 20 whole cell lysate: sc-364187.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA
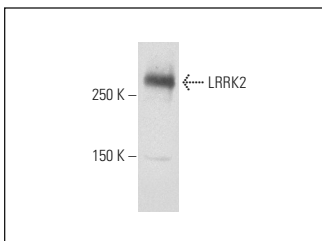
LRRK2 (M-300): sc-66954. Western blot analysis of LRRK2 expression in EOC 20 whole cell lysate.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

MONOS
Satisfaction Guaranteed

Try **LRRK2 (133AT1218): sc-130159**, our highly recommended monoclonal alternative to LRRK2 (M-300).