

## Product Datasheet

## Anti-LRRK2/Dardarin, N3 (Non-Mouse-Reactive) Antibody FL490 Conjugate



## Overview

<b>Catalog #</b>	75-266-FL490
<b>Conjugate</b>	FL490 Ex: 491 nm, Em: 515 nm
<b>Isotype</b>	IgG2a
<b>Clone Number</b>	N231B/34
<b>Size</b>	200 µL
<b>Concentration</b>	0.5 mg/mL
<b>Host Species</b>	Mouse Monoclonal
<b>Format</b>	Purified by Protein A chromatography
<b>Buffer</b>	PBS with 0.09% azide
<b>Applications</b>	ICC, IHC
<b>Species Reactivity</b>	Human, Mouse, and Rat
<b>Immunogen</b>	Fusion protein amino acids 841-960 of human LRRK2 (accession number Q5S007) produced recombinantly in E. Coli
<b>Molecular Weight</b>	>200 kDa
<b>Cite this Antibody</b>	Antibodies Inc Cat# 75-266-FL490, RRID: AB_2939956

## Details

## Target Description

LRRK2 (also known as PARK8) encodes a protein with 5 putative functional domains: an N-terminal leucine-rich repeat (LRR) domain, a Roc (Ras of complex protein) domain that shares sequence homology to the Ras-related GTPase superfamily, a COR (C-terminal of Roc) domain, a mitogen-activated protein kinase kinase kinase (MAPKKK) domain, and a C-terminal WD40 repeat domain. Mutation in this gene is one of the most common causes of inherited Parkinson disease (Gandhi et al., 2008). LRRK2 was originally identified as a putative disease-causing transcript (DKFZp434H2111) within a 2.6-Mb region encompassing a locus for Parkinson disease-8 (PARK8). Northern blot analysis detected a 9-kb mRNA transcript in all tissues tested, including brain. The authors named the protein product dardarin, derived from the Basque word dardara, meaning tremor. LRRK2/dardarin is also known to positively regulate autophagy through a calcium-dependent activation of the CaMKK/AMPK signaling pathway and together with RAB29, plays a role in the retrograde trafficking pathway for recycling proteins, such as mannose 6 phosphate receptor (M6PR), between lysosomes and the Golgi apparatus in a retromer-dependent manner. LRRK2/PARK8 is also known to regulate neuronal process morphology in the intact central nervous system (CNS) and play a role in synaptic vesicle trafficking.

<b>Specificity</b>	No cross-reactivity reported
<b>Purification Method</b>	Produced by in vitro bioreactor culture of hybridoma line followed by Protein A affinity chromatography and conjugation of purified mAb. Purified mAbs are >90% specific antibody.
<b>Quality Control Tests</b>	Each new lot of antibody is quality control tested by western blot on rat whole brain lysate and confirmed to stain the expected molecular weight band.
<b>Storage</b>	Aliquot and store at $\leq -20^{\circ}\text{C}$ for long term storage. For short term storage, store at $2-8^{\circ}\text{C}$ . For maximum recovery of product, centrifuge the vial prior to removing the cap.

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