

#### **Product Datasheet**

# Anti-LRRK2/Dardarin, N3 (Non-Mouse-Reactive) Antibody FL594 Conjugate



#### Overview

Catalog # 75-266-FL594

**Conjugate** FL594 Ex: 594 nm, Em: 615 nm

 $\begin{tabular}{lll} Isotype & IgG2a \\ Clone Number & N231B/34 \\ Size & 200 \ \mu L \\ Concentration & 0.5 \ mg/mL \\ \end{tabular}$ 

Host Species Mouse Monoclonal

Format Purified by Protein A chromatography

**Buffer** PBS with 0.09% azide

Applications ICC, IHC

Species Reactivity Human, Mouse, and Rat

Immunogen Fusion protein amino acids 841-960 of human LRRK2 (accession number Q5S007) produced

recombinantly in E. Coli

Molecular Weight >200 kDa

Cite this Antibody Antibodies Inc Cat# 75-266-FL594, RRID: AB 2939958

#### **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 mitogenactivated 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.

**Specificity** No cross-reactivity reported

**Purification Method** 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.

**Quality Control Tests** 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.

**Storage** Aliquot and store at  $\leq$  -20°C for long term storage. For short term storage, store at 2-8°C. For

maximum recovery of product, centrifuge the vial prior to removing the cap.

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