

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human LRRK2 in direct ELISAs.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	<i>E. coli</i> -derived recombinant human LRRK2 Val241-Val500 Accession # Q5S007
Conjugate	Alexa Fluor 488 Excitation Wavelength: 488 nm Emission Wavelength: 515-545 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide
*Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.	

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.

Immunohistochemistry Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

BACKGROUND

LRRK2 (Leu-rich repeat/LRR-containing protein kinase 2; also Dardarin) is a 260-280 kDa member of the TKL (Tyr kinase-like) Ser/Thr protein kinase family of molecules. It is unusual in that it possesses both GTPase and protein kinase enzyme activity. LRRK2 is expressed in dopamine system neurons, macrophages and B2 B cells (in rodent), and mutations of the molecule are associated with the pathogenesis of Parkinson's disease. Through its protein kinase activity, LRRK2 phosphorylates both 4E-BP and FoxO1, two molecules involved in the initiation of protein translation. Human LRRK2 is 2527 amino acids (aa) in length. It contains multiple domains, including 16 LRRs (aa 226-249; 791-1291; 1556-1887), one coiled-coil region (aa 319-348), a GTPase Roc domain (aa 1328-1511), a protein kinase region (aa 1879-2138), and a WD40 domain (aa 2168-2387). There are three potential splice variants for LRRK2. One shows an alternative start site at Met1203 coupled to a 26 aa substitution for aa 2465-2527, a second contains a three aa substitution for aa 1-1165, and a third possesses an alternative start site at Met402 accompanied by a 12 aa substitution for aa 1259-2527. Over aa 241-500, human LRRK2 shares 85% aa identity with mouse LRRK2.

PRODUCT SPECIFIC NOTICES

This product is provided under an agreement between Life Technologies Corporation and R&D Systems, Inc., and the manufacture, use, sale or import of this product is subject to one or more US patents and corresponding non-US equivalents, owned by Life Technologies Corporation and its affiliates. The purchase of this product conveys to the buyer the non-transferable right to use the purchased amount of the product and components of the product only in research conducted by the buyer (whether the buyer is an academic or for-profit entity). The sale of this product is expressly conditioned on the buyer not using the product or its components (1) in manufacturing; (2) to provide a service, information, or data to an unaffiliated third party for payment; (3) for therapeutic, diagnostic or prophylactic purposes; (4) to resell, sell, or otherwise transfer this product or its components to any third party, or for any other commercial purpose. Life Technologies Corporation will not assert a claim against the buyer of the infringement of the above patents based on the manufacture, use or sale of a commercial product developed in research by the buyer in which this product or its components was employed, provided that neither this product nor any of its components was used in the manufacture of such product. For information on purchasing a license to this product for purposes other than research, contact Life Technologies Corporation, Cell Analysis Business Unit, Business Development, 29851 Willow Creek Road, Eugene, OR 97402, Tel: (541) 465-8300. Fax: (541) 335-0354.