

Active Recombinant Human PARK2 protein

Cat. No. PARK2-332H Lot. No. (See product label)

SPECIFICATION

Product Overview	Recombinant Human PARK2 was expressed in Insect cells.
Species	Human
Source	Insect Cells
Description	The E3 Ubiquitin ligase Parkin (encoded by the PARK2 gene) is an essential part of the cellular machinery that participates in the removal of damaged mitochondria. Mutations in PARK2 are known to cause a form of Parkinson's disease known as autosomal recessive juvenile Parkinson's disease (AR-JP), and the mechanisms by which defective Parkin ligase contributes to the dopaminergic cell death in this disease is an area of intense investigation.
Form	X mg/ml (X µM) in 25 mM Tris pH 8.5, 200 mM NaCl, 0.03% Brij35, 10% (v/v) Glycerol, 5 mM TCEP
Bio-activity	Reaction conditions will need to be optimized for each specific application. As supplied, Parkin has negligible E3 ligase activity as determined by the lack of autoubiquitination in an in vitro assay. Parkin ligase activity is greatly enhanced by phosphorylation with PINK1 kinase or by the addition of low concentrations of phosphorylated Ubiquitin.
Molecular Mass	52 kDa
Purity	>95%, by SDS-PAGE under reducing conditions and visualized by Colloidal

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Coomassie® Blue stain.

Storage

Avoid repeated freeze-thaw cycles.

12 months from date of receipt, -70 centigrade as supplied.

3 months, -70 centigrade under sterile conditions after opening.

GENE INFORMATION

Gene Name

PARK2 parkinson protein 2, E3 ubiquitin protein ligase (parkin) [Homo sapiens]

Official Symbol

PARK2

Synonyms

PARK2; parkinson protein 2, E3 ubiquitin protein ligase (parkin); Parkinson disease (autosomal recessive, juvenile) 2, parkin; E3 ubiquitin-protein ligase parkin; AR JP; E3 ubiquitin ligase; parkin; PDJ; parkin 2; parkinson disease protein 2; parkinson juvenile disease protein 2; PRKN; AR-JP; LPRS2;

Gene ID

5071

mRNA Refseq

NM_004562

Protein Refseq

NP_004553

MIM

602544

UniProt ID

O60260

Chromosome Location

6q25.2-q27

Pathway

Adaptive Immune System, organism-specific biosystem; Alpha-synuclein signaling,

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organism-specific biosystem; Antigen processing: Ubiquitination and Proteasome degradation, organism-specific biosystem; Class I MHC mediated antigen processing & presentation, organism-specific biosystem; Immune System, organism-specific biosystem;

Function

PDZ domain binding; acid-amino acid ligase activity; chaperone binding; kinase binding; ligase activity; metal ion binding; protein binding; protein kinase binding; ubiquitin protein ligase binding; ubiquitin-protein ligase activity; zinc ion binding;

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