

Active Recombinant Human LRRK2 (I2020T), GST-tagged

Cat. No. LRRK2-110H Lot. No. (See product label)

SPECIFICATION

Product Overview Recombinant human LRRK2 (I2020T) (968-end) was expressed by baculovirus in Sf9 insect cells using an N-terminal GST tag.

Species Human

Source Sf9 Cells

ProteinLength 968-end a.a.

Description LRRK2 or leucine-rich repeat kinase is a protein with an ankryin repeat region, a leucine-rich repeat (LRR) domain, a kinase domain, a DFG-like motif, a RAS domain, a GTPase domain, a MLK-like domain, and a WD40 domain. Mutations in LRRK2 are the most frequent known cause of autosomal dominant and idiopathic Parkinson's disease with prevalent mutations being found within the GTPase and kinase domains. LRRK2 cooperates with MET to promote efficient tumor cell growth and survival in various cancers. Down-regulation of LRRK2 in cultured tumor cells compromises MET activation and selectively reduces downstream MET signaling to mTOR and STAT3.

Form Recombinant protein stored in 50mM Tris-HCl, pH 7.5, 150mM NaCl, 10mM glutathione, 0.1mM EDTA, 0.25mM DTT, 0.1mM PMSF, 25% glycerol.

Bio-activity The specific activity of LRRK2 was determined to be 7 nmol /min/mg

Molecular Mass ~210 kDa

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Purity	>70% by densitometry
Applications	Kinase Assay, Western Blot
Storage	Store product at –70 centigrade. For optimal storage, aliquot target into smaller quantities after centrifugation and store at recommended temperature. For most favorable performance, avoid repeated handling and multiple freeze/thaw cycles.
Concentration	0.05 µg/µl

GENE INFORMATION

Gene Name	LRRK2 leucine-rich repeat kinase 2 [Homo sapiens]
Official Symbol	LRRK2
Synonyms	LRRK2; leucine-rich repeat kinase 2; PARK8, Parkinson disease (autosomal dominant) 8; leucine-rich repeat serine/threonine-protein kinase 2; DKFZp434H2111; FLJ45829; RIPK7; ROCO2; augmented in rheumatoid arthritis 17; PARK8; AURA17; DARDARIN;
Gene ID	120892
mRNA Refseq	NM_198578
Protein Refseq	NP_940980
MIM	609007
UniProt ID	Q5S007

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Chromosome Location	12q12
Pathway	Parkinsons disease, organism-specific biosystem;
Function	ATP binding; GTP binding; GTP-dependent protein kinase activity; GTP-dependent protein kinase activity; GTPase activator activity; NOT GTPase activity; MAP kinase kinase activity; nucleotide binding; protein binding; protein homodimerization activity; protein kinase activity; protein serine/threonine kinase activity; tubulin binding;

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