



## Product Information Sheet

**Product Name:** Recombinant DJ-1 (PARK7) Protein, Human, GST tagged (GST-DJ-1)

**Catalog Number:** AS-72220

**Lot Number:** See label on the vial

**Amount/size:** 10 µg, 100 µg, 500 µg

**Source:** The sequence (Accession # NP\_001116849) corresponding to the full length human DJ-1 protein along with N-terminal GST tag was expressed in *E. coli*. The recombinant DJ-1 protein was purified from bacterial lysate using GST affinity chromatography. GST tag was not removed. The molecular weight of the recombinant GST-DJ-1 protein is 47.3 kDa.

**Activity:** GST-DJ-1 was assayed for the protease activity using Sensolyte® Green Protease Assay Kit (AnaSpec Cat.# 71124).

**Applications:** ELISA, WB, Protease Activity

**Purity:** Greater than 95% as determined by SDS-PAGE.

**Storage:** The purified GST-DJ-1 is supplied as sterile and frozen at 1 mg/ml in 50 mM Tris-Cl/150mM NaCl, pH=8.0. Store at 2-4 °C for immediate use within 1-2 weeks or at -80 °C for up to 12 months. Avoid repeated freeze-thaw cycles.

**Instructions:** DJ-1 (also known as PARK7, Parkinson disease protein 7) is a 189 amino acid protein that is ubiquitously expressed in many organs including brain, liver, kidney, pancreas, heart, and others<sup>1-5</sup>. Although DJ-1 was originally discovered as a novel oncogene product, it was found to play several other roles in biological processes. They include regulation of RNA binding activity, fertility, anti-oxidative stress, and linked to the early onset of Parkinson disease when mutated<sup>1-5</sup>. Recently it was demonstrated that DJ-1 can act as an atypical peroxiredoxin-like peroxidase<sup>5</sup> and poses protease activity<sup>4</sup>.

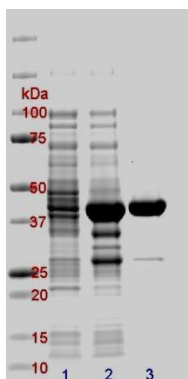


Figure 1.



Figure 2.

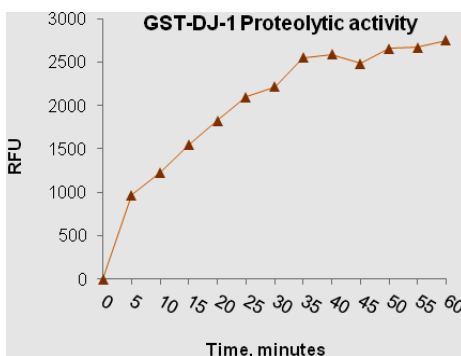


Figure 3.

**Figure 1. Human GST-DJ-1 on SDS-PAGE.**

Purified GST-DJ-1 was loaded onto 10-20% Tris-H gel at 3 µg/well and resolved at 200V for 40 min. 1=Uninduced cell lysate, 2=Induced cell lysate, 3=Purified GST- DJ-1 protein.

**Figure 2. Western Immunoblot of DJ-1.**

Purified GST-DJ-1 protein was probed with anti-DJ-1 specific antibody.

**Figure 3. GST-DJ-1 Proteolytic Activity.**

GST-DJ-1 was loaded at 200 µg/well with 1mM DTT and assayed for proteolytic activity using Green Protease Assay Kit (AnaSpec Cat. # 71124).

## Related Products

Product Name	Cat. #
Recombinant DJ-1 (PARK7) Protein, Human	AS-72219-10 AS-72219-100 AS-72219-500
EndoClear™Plus Human Recombinant human $\alpha$ - synuclein	AS-56081-100 AS-56081-500
EndoClear™ Human Recombinant human $\alpha$ - synuclein	AS-55555-100 AS-55555-500 AS-55555-1000
Recombinant human $\alpha$ - synuclein (1 - 140), HiLyte Fluor™488 labeled	AS-55457
Recombinant Human $\beta$ - Synuclein (1 - 134)	AS-55458-100 AS-55458-500 AS-55458-1000
<a href="#">SensoLyte® Anti-<math>\alpha</math> -Synuclein (Human) ELISA Kit</a>	AS-55550-H
Recombinant human $\alpha$ - synuclein (1 - 140), biotin labeled	AS-55581

## References:

1. Huai Q., et. al., FEBS Letters v549 (2003): 171-175
2. Inden M., et. al., J. of Pharma. Sci. v117 (2011): 189-203
3. Kitamura Y., et. al., Mol. Neurodegen. v6 n48 (2011): 1-19
4. Chen J., et. al., Hum. Mol. Genetics v19 n12 (2010): 2395-2408
5. Andres-Mateos E., et. al., Proc. Nat. Acad. Sci. v104 (2007): 14807-14812

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