**InnoCyto Inc.**
15375 Barranca Pkwy, Suite I-103
Irvine, CA 92618

# Technical Data Sheet

Human SURF1 Protein (C-Fc)

**Catalog Number:** 601901, 601902
**Size:** 25 ug, 100 ug
**Target Name:** SURF1, Surfeit locus protein 1
**Regulatory Status:** RUO

## Product Details

**Application:** ELISA, BLI
**Format:** Liquid, Purified
**Expression Host:** CHO
**Species:** Human
**Accession Number:** Q15526
**Sources:** Recombinant human SURF1 protein (Val98-Val265) with C-terminus Fc tag was expressed in CHO Cells.
**Molecular Weight:** This protein has a predicted molecular weight of 45.3 kDa. Under DTT-reducing conditions, the protein migrates at approximately 50 kDa on SDS-PAGE.
**Affinity Tag:** C-Fc
**Purity:** >90% based on SDS-PAGE under reducing condition
**Formulation:** 1xPBS with 5mM DTT, pH 7.4 (0.2 um filtered)
**Endotoxin level:** Not tested
**Protein Concentration:** 25µg size is bottled at 0.2mg/mL concentration. 100 µg size is supplied at a lot-specific concentration.
**Storage and Handling:** Briefly centrifuge the vial upon receipt. An unopened vial can be stored at 4°C for up to 2 weeks, or at -20°C or below for up to six months. The protein may be further diluted to 0.1 mg/mL using 0.22 µm-filtered PBS buffer (pH 7.4). For long-term storage, the diluted stock solution should be aliquoted and stored at <= –70°C to minimize freeze-thaw cycles. If additional dilution is required, carrier proteins such as FBS or BSA should be added to maintain protein stability.

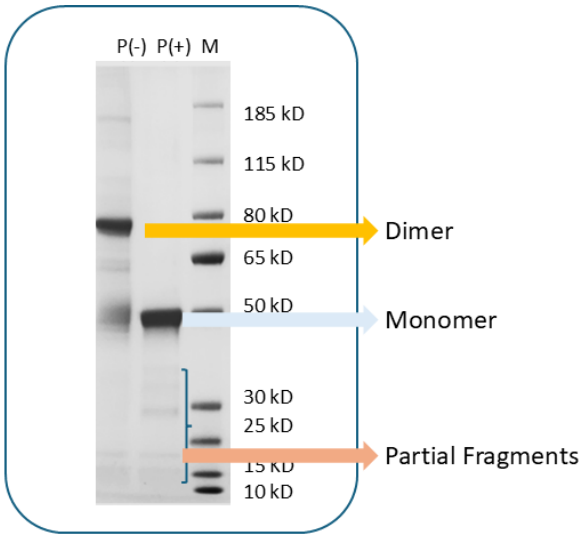
## Background Information

SURF1 is a mitochondrial inner membrane protein encoded by the SURF1 gene. Surf1 involves in the assembly of cytochrome c oxidase (COX), also known as complex IV of the respiratory chain. It contains multiple transmembrane domains and plays a crucial role in stabilizing early COX subunits during complex formation.

Mutations in SURF1 are a major cause of Leigh syndrome, a severe neurodegenerative disorder characterized by progressive brain lesions, motor delays, and mitochondrial dysfunction. These mutations lead to isolated COX deficiency, impairing energy production in high-demand tissues like the brain. SURF1 is therefore critical to mitochondrial function, and its dysfunction is strongly associated with mitochondrial disease.

**InnoCyto Inc.**
15375 Barranca Pkwy, Suite I-103
Irvine, CA 92618

**Product Data**




Purified human SURF1 (Val98-Val265) with C-terminus human IgG1-Fc tag final products on SDS-PAGE under non-reducing (P-) and reducing (P+) conditions (left panel). The purity of the protein is greater than 90% based on reducing conditions.