

HUMAN SELENOP PROTEIN, FLAG TAG

Cat.#: 11874

Product Name: Human Selenop Protein

Size: 10 µg, 50 µg and 100 µg

Synonyms: SELP;SeP;SEPP;SEPP1

Target: Selenop

UNIPROT ID: P49908

Description: Recombinant Human Selenop Protein with C-terminal 3xflag tag

Background: This gene encodes a selenoprotein that is predominantly expressed in the liver and secreted into the plasma. This selenoprotein is unique in that it contains multiple selenocysteine (Sec) residues per polypeptide (10 in human), and accounts for most of the selenium in plasma. It has been implicated as an extracellular antioxidant, and in the transport of selenium to extra-hepatic tissues via apolipoprotein E receptor-2 (apoER2). Mice lacking this gene exhibit neurological dysfunction, suggesting its importance in normal brain function. Sec is encoded by the UGA codon, which normally signals translation termination. The 3' UTRs of selenoprotein mRNAs contain a conserved stem-loop structure, designated the Sec insertion sequence (SECIS) element, that is necessary for the recognition of UGA as a Sec codon, rather than as a stop signal. The mRNA for this selenoprotein contains two SECIS elements. The use of alternative polyadenylation sites, one located in between the two SECIS elements, results in two populations of mRNAs containing either both (predominant) or just the upstream SECIS element (PMID:27881738). Alternatively spliced transcript variants have also been found for this gene.

Species/Host: HEK293

Molecular Weight: The protein has a predicted molecular mass of 42.5 kDa after removal of the signal peptide.

Molecular Characterization: Selenop(Met1-Asn381) 3×Flag tag

Purity: The purity of the protein is greater than 85% as determined by SDS-PAGE and Coomassie blue staining.

Formulation & Reconstitution: Lyophilized from nanodisc solubilization buffer (20 mM Tris-HCl, 150 mM NaCl, pH 8.0). Normally 5% – 8% trehalose is added as protectants before lyophilization.

Storage & Shipping: Store at -20°C to -80°C for 12 months in lyophilized form. After reconstitution, if not intended for use within a month, aliquot and store at -80°C (Avoid repeated freezing and thawing). Lyophilized proteins are shipped at ambient temperature.

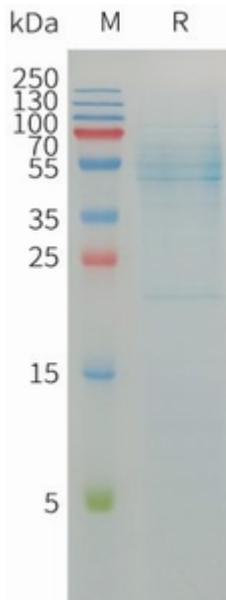


Figure 1. Human Selenop Protein, Flag Tag on SDS-PAGE under reducing condition.