

PRODUCT INFORMATION

Tag	C-Flag Tag
Expression Host	HEK293
Target	STEAP1
Synonyms	PRSS24; STEAP
Description	Human STEAP1 full length protein-synthetic nanodisc
Uniprot ID	Q9UHE8
Protein Families	Transmembrane
Protein Pathways	N/A
Molecular Weight	The human full length STEAP1 protein has a MW of 39.9 kDa
Delivery	In Stock
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. Please see Certificate of Analysis for specific instructions. Do not use solvents with a pH below 6.5 or those containing high concentrations of divalent metal ions (greater than 5 mM) in subsequent experiments.
Sterility	Products are supplied non-sterile. For cell culture applications, dilute in appropriate medium and sterile-filter (0.22 µm) prior to use.
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.
Background	STEAP1 is a cell-surface biomolecule composed by six transmembrane domains connected by intra- and extracellular loops. It is commonly found overexpressed in several types of cancers, namely in PCa, and is preferentially located at the tight or gap junctions. However, in nontumoural tissues and vital organs, STEAP1 protein presents low or absent expression, unveiling considerable specificity for cancer environment. Taking into account STEAP1 predicted transmembrane topology and cellular localization, it has been hypothesized that STEAP1 may play an important role as a transporter protein and can be involved in intercellular communication.
Usage	Research use only
Conjugate	Unconjugated



ELISA assay to evaluate STEAP1-Nanodisc 0.2 μ g Human STEAP1-Nanodisc per well

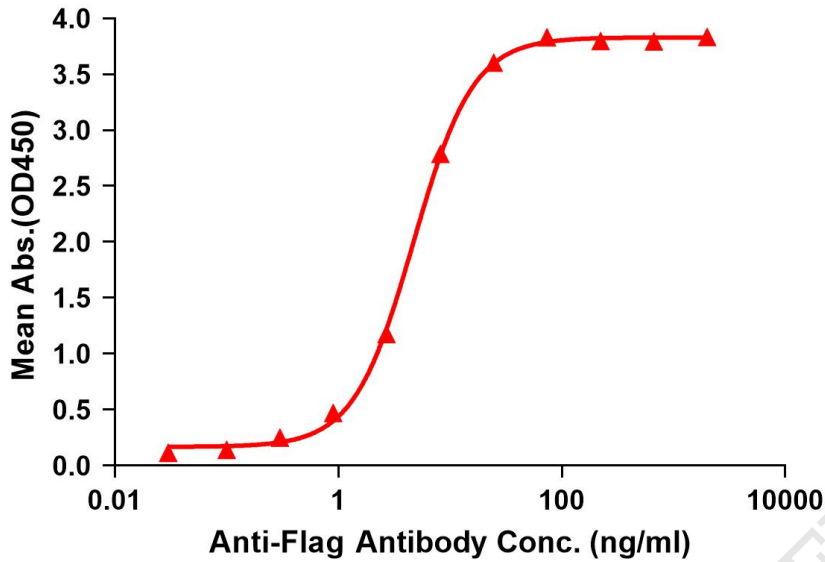


Figure 1. Elisa plates were pre-coated with Flag Tag STEAP1-Nanodisc (0.2 μ g/per well). Serial diluted anti-Flag monoclonal antibody solutions were added, washed, and incubated with secondary antibody before Elisa reading. From above data, the EC50 for anti-Flag monoclonal antibody binding with STEAP1-Nanodisc is 4.713ng/ml.

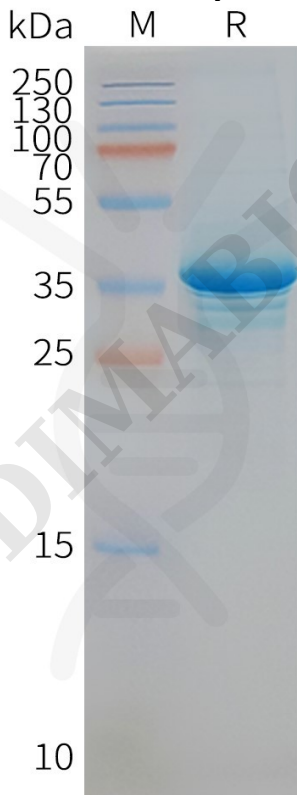


Figure 2. Human STEAP1-Nanodisc, Flag Tag on SDS-PAGE



Visual appearance of Purified Human STEAP1 Full-length Protein

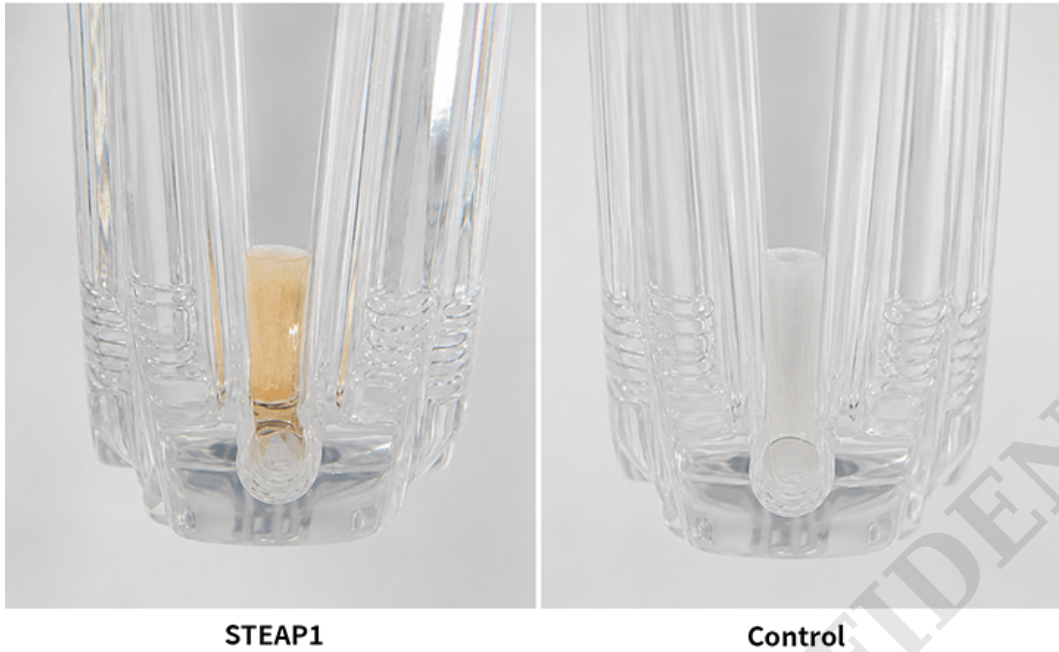


Figure 3. Visual appearance of purified human STEAP1 full-length protein. The purified STEAP1 sample displayed a characteristic pale yellow to reddish-brown coloration compared with the nearly colorless control, consistent with successful heme incorporation during protein expression and purification.

