HUMAN MDR-1 FULL LENGTH PROTEIN

Cat.#: 11012
Product Name: Human MDR-1 Full Length Protein
Size : 10 µg, 50 µg and 100 µg
Synonyms: ABCB1; CD243; CLCS; GP170; MDR1; p-170; P-GP; PGY1
Target: MDR-1
UNIPROT ID: P08183
Description: Human MDR-1 full length protein-synthetic nanodisc
Background: The membrane-associated protein encoded by this gene is a member of the superfamily of ATP-binding cassette (ABC) transporters. ABC proteins transport various molecules across extra- and intra-cellular membranes. ABC genes are divided into seven distinct subfamilies (ABC1, MDR/TAP, MRP, ALD, OABP, GCN20, White). This protein is a member of the MDR/TAP subfamily. Members of the MDR/TAP subfamily are involved in multidrug resistance. The protein encoded by this gene is an ATP-dependent drug efflux pump for xenobiotic compounds with broad substrate specificity. It is responsible for decreased drug accumulation in multidrug-resistant cells and often mediates the development of resistance to anticancer drugs. This protein also functions as a transporter in the blood-brain barrier. Mutations in this gene are associated with colchicine resistance and Inflammatory bowel disease 13. Alternative splicing and the use of alternative promoters results in multiple transcript variants.
Species/Host: HEK293
Molecular Weight: The human full length MDR-1 protein has a MW of 141.5 kDa
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.

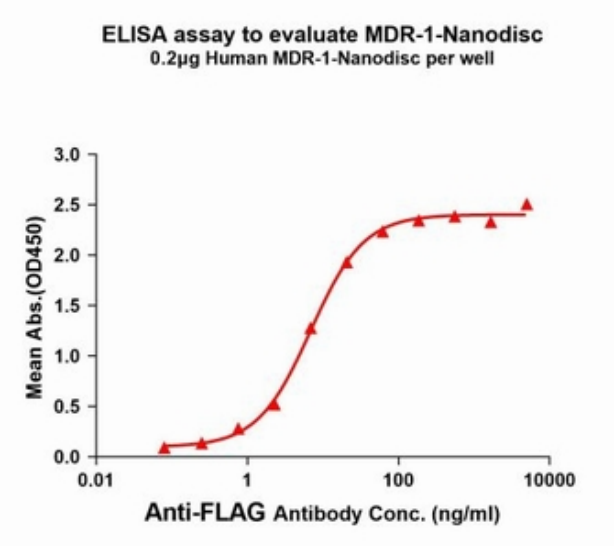

Figure1. Elisa plates were pre-coated with Flag Tag MDR-1-Nanodisc (0.2 μg/per well). Serial diluted anti-Flag monoclonal antibody solutions were added, washed, and incubated with secondary antibody before Elisa reading. From above data, the EC50 for anti-Flag monoclonal antibody binding with MDR-1-Nanodisc is 6.883ng/ml.

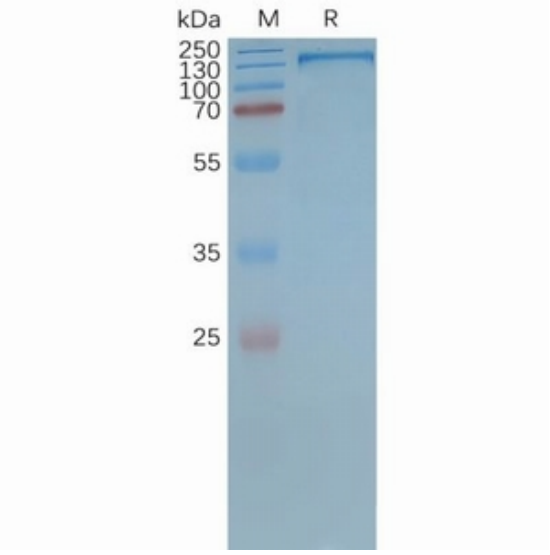

Figure2. Human MDR-1-Nanodisc, Flag Tag on SDS-PAGE