PRODUCT INFORMATION

Tag	C-Flag Tag
Target	MDR-1
Synonyms	ABCB1; CD243; CLCS; GP170; MDR1; p-170; P-GP; PGY1
Description	Human MDR-1 full length protein-synthetic nanodisc
Delivery	In Stock
Uniprot ID	P08183
Expression Host	HEK293
Protein Families	Druggable Genome, ES Cell Differentiation/IPS, Transmembrane
Protein Pathways	ABC transporters
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. 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.
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	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.
Usage	Research use only
Conjugate	Unconjugated

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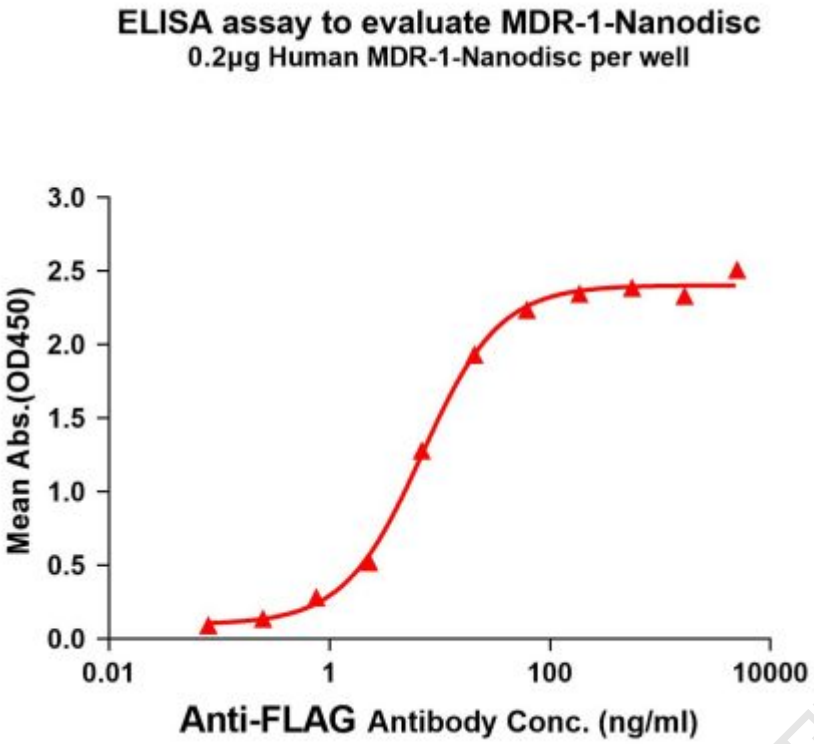

Figure1. Elisa plates were pre-coated with Flag Tag MDR-1-Nanodisc (0.2μg/per well). Serial diluted anti-Flag monoclonal antibody solutions were added, washed, and incubated with secondary antibody before Elisa reading. From above data, the EC50 for anti-Flag monoclonal antibody binding with MDR-1-Nanodisc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

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

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