HUMAN MDR-1 PROTEIN, HFC TAG

Cat.#: 11386

Product Name: Human MDR-1 Protein

Size : 10 µg, 50 µg and 100 µg

Synonyms: ABC20;CD243;CLCS;GP170;MDR1;P-GP;PGY1

Target: MDR-1

UNIPROT ID: P08183

Description: Recombinant Human MDR-1 with C-terminal human Fc tag

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. [provided by RefSeq, Feb 2017]

Species/Host: HEK293

Molecular Weight: The protein has a predicted molecular mass of 34.2 kDa after removal of the signal peptide.The apparent molecular mass of MDR-1-hFc is approximately 25-55 kDa due to glycosylation.

Molecular Characterization: MDR-1(Phe72-Arg113) (Lys213-Thr215) (Thr318-Gln330) (Gly960-Asp973) hFc(Glu99-Ala330)

Purity: The purity of the protein is greater than 95% 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.

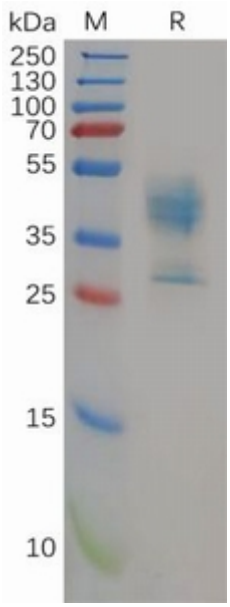

Figure 1. Human MDR-1 Protein, hFc Tag on SDS-PAGE under reducing condition.