

## 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;GPI70;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.

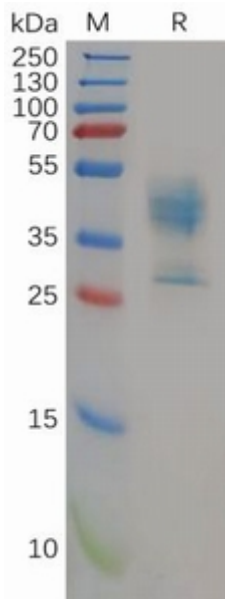


Figure 1. Human MDR-1 Protein, hFc Tag on SDS-PAGE under reducing condition.