

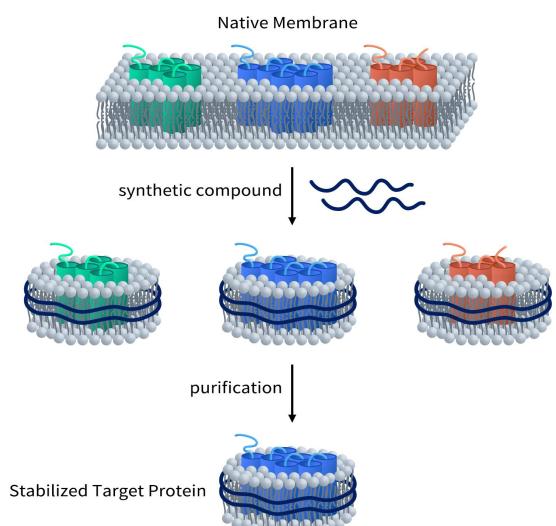


Synthetic Nanodisc

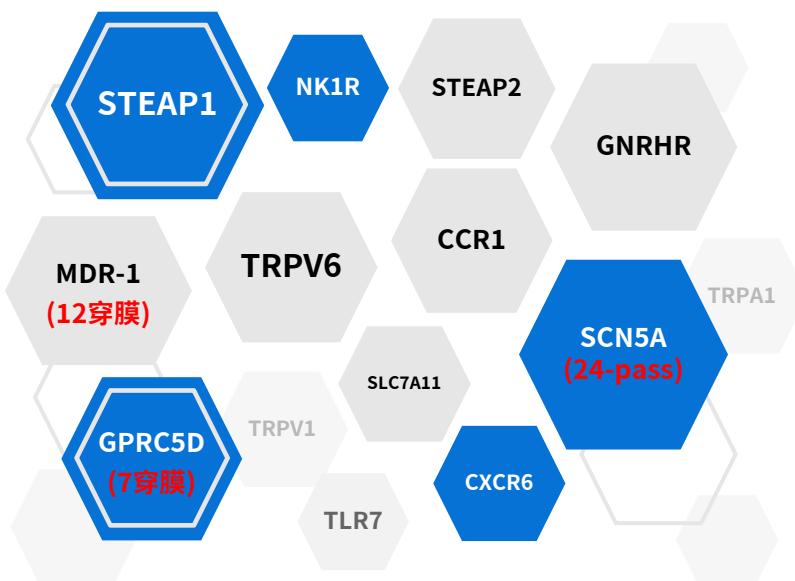
Synthetic Nanodisc

Unlike other membrane scaffold protein (MSP) Nanodisc on the market, synthetic Nanodisc developed by DIMA Bio can be prepared directly from the cells. The polymers used during this process have a dual function. It dissolves the cell membranes, like the detergent, and uses cellular phospholipids to form Nanodisc around the membrane proteins. The target protein embedded Nanodiscs can then be purified by affinity purification.

Nanodisc Platform



500+ Target Proteins



Advantages:

- Highly purified membrane proteins
- High solubility in aqueous solutions
- High stability
- Proteins are in a native membrane environment and remain biologically active
- No detergent and can be used for cell-based assays
- No MSP backbone proteins
- Mammalian cell expression system ensures post-translational modifications



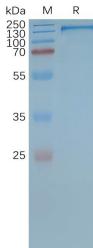
Applications:

- ELISA
- SPR affinity analysis
- Phage display screening
- Immunization
- Cryo-EM membrane protein structure analysis
- Protein crystal structure analysis

Case Studies

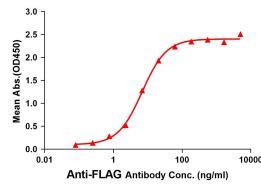
MDR-1

MDR-1-synthetic nanodisc
(12 transmembrane protein)



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

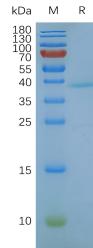
ELISA assay to evaluate MDR-1-Nanodisc
0.3µg Human MDR-1-Nanodisc per well



MDR-1-Nanodisc (Cat.NO.FLP100029) can bind anti-Flag monoclonal antibody and the EC50 is 6.883ng/ml.

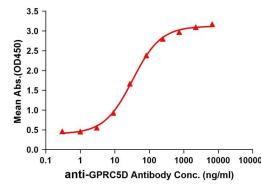
GPRC5D

GPRC5D -synthetic nanodisc
(7 transmembrane protein)



Human GPRC5D-Nanodisc, Flag Tag on SDS-PAGE

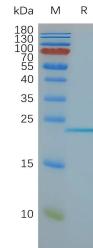
ELISA assay to evaluate GPRC5D-Nanodisc
0.5µg Human GPRC5D-Nanodisc per well



GPRC5D-Nanodisc (Cat.NO.FLP100011) can bind anti-GPRC5D monoclonal antibody(DME100090) and the EC50 is 32.86ng/ml.

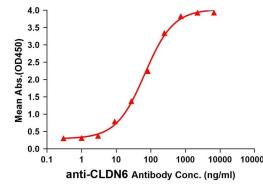
Claudin 6

Claudin6 -synthetic nanodisc
(4 transmembrane protein)



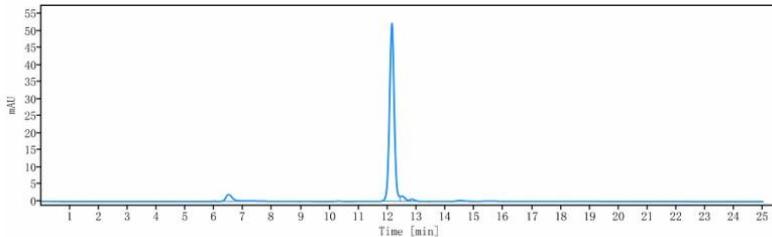
Human CLDN6-Nanodisc, Flag Tag on SDS-PAGE

ELISA assay to evaluate CLDN6-Nanodisc
0.5µg Human CLDN6 Nanodisc per well



CLDN6-Nanodisc (Cat.NO.FLP100008) can bind anti-CLDN6 monoclonal antibody (BME100082) and the EC50 is 66.99ng/ml.

SEC-HPLC



The purity of Human SLC7A11-Nanodisc is greater than 90% as determined by SEC-HPLC.

Full length protein-synthetic nanodisc

Target	Catalog Number	Product Name
STEAP1	FLP100070	Human STEAP1 full length protein-synthetic nanodisc
STEAP2	FLP100043	Human STEAP2 full length protein-synthetic nanodisc
GNRHR	FLP100092	Human GNRHR full length protein-synthetic nanodisc
TRPV6	FLP100159	Human TRPV6 full length protein-synthetic nanodisc
NK1R	FLP100359	Human NK1R full length protein-synthetic nanodisc
CCR1	FLP100094	Human CCR1 full length protein-synthetic nanodisc
STEAP2	FLP100043	Human STEAP2 full length protein-synthetic nanodisc
TLR7	FLP100144	Human TLR7 full length protein-synthetic nanodisc
SLC7A11	FLP100048	Human SLC7A11 full length protein-synthetic nanodisc
CXCR6	FLP100124	Human CXCR6 full length protein-synthetic nanodisc
TRPV1	FLP100128	Human TRPV1 full length protein-synthetic nanodisc
TRPA1	FLP100033	Human TRPA1 full length protein-synthetic nanodisc