DIMA BIOTECH
Recombinant mAbs and proteins

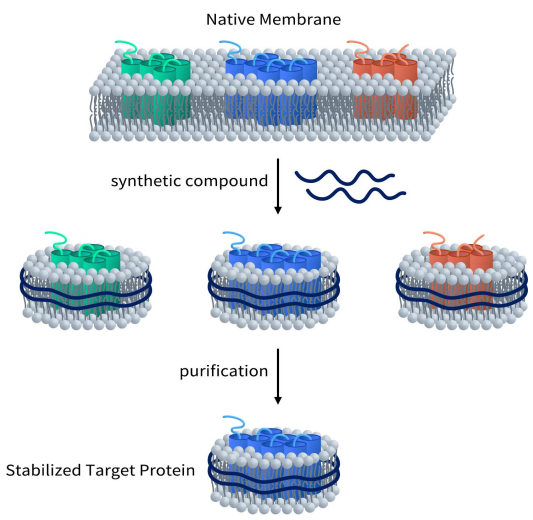
Synthetic Nanodisc /合成纳米盘

Synthetic Nanodisc（合成纳米盘）

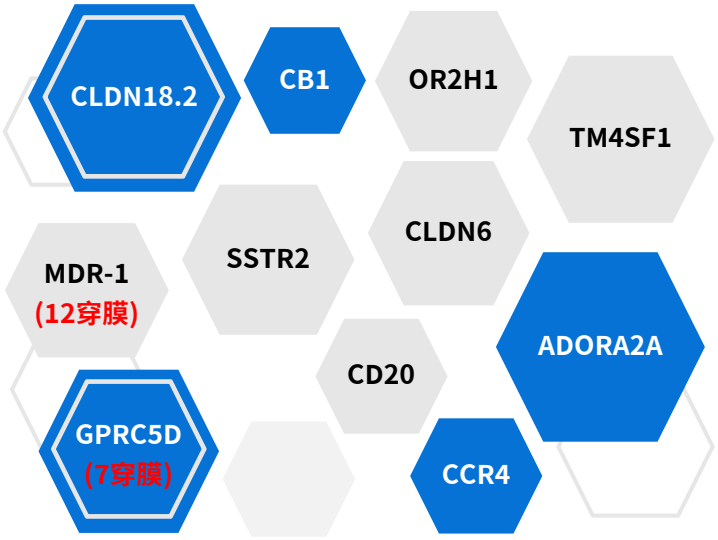
Nanodisc中文名称为纳米圆盘，该平台利用具有疏水和亲水双重特性的物质作为稳定剂，稳定剂朝向内部脂层的疏水面可将膜蛋白整合到Nanodisc中，维持膜蛋白的天然空间构象和活性。同时，朝外的亲水面使得Nanodisc在水溶液中具有很高的溶解度和稳定性。

与市面上大多数MSP Nanodisc不同，缔码生物研发的Synthetic Nanodisc能直接从完整的细胞中制作。在这个过程中，使用的合成高分子具有双重功能。首先，它溶解细胞膜，类似于洗涤剂，同时利用天然细胞磷脂在膜蛋白周围形成纳米盘结构。

流程图



现货靶标



优势

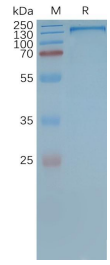
- 可以制备高度纯化的膜蛋白
- 水溶液中具有高的溶解度
- 高稳定性
- 跨膜蛋白处于天然膜环境中，保持生物活性
- 后续实验中不需要添加洗涤剂，可以直接应用于细胞学分析
- 不含不相关MSP骨架蛋白
- 哺乳细胞表达系统能保证其翻译后修饰

应用

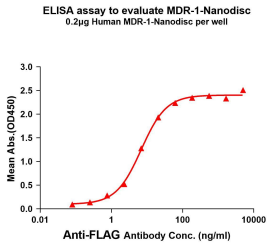
- ELISA
- SPR亲和力分析
- 噬菌体展示筛选实验
- 免疫
- 细胞功能验证实验
- 蛋白晶体结构分析
- 常规蛋白生化分析

案例一

MDR-1-synthetic nanodisc（12次穿膜蛋白）



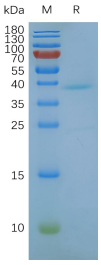
Human MDR-1-Nanodisc, Flag Tag on SDS-PAGE



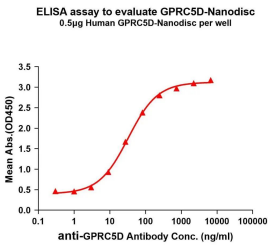
MDR-1-Nanodisc (Cat.NO.FLP100029) can bind anti-Flag monoclonal antibody and the EC50 is 6.883ng/ml.

案例二

GPRC5D -synthetic nanodisc（7次穿膜蛋白）



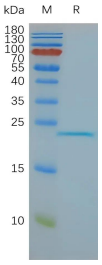
Human GPRC5D-Nanodisc, Flag Tag on SDS-PAGE



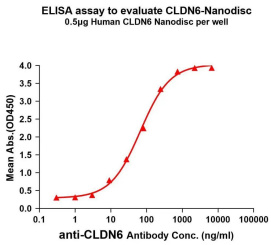
GPRC5D-Nanodisc (Cat.NO.FLP100011) can bind anti-GPRC5D monoclonal antibody(DME100090) and the EC50 is 32.86ng/ml.

案例三

Claudin6 -synthetic nanodisc（4次穿膜蛋白）



Human CLDN6-Nanodisc, Flag Tag on SDS-PAGE



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

Full length protein-synthetic nanodisc 产品目录

Target	Catalog Number	Product Name
CLDN6	FLP100008	Human CLDN6 full length protein-synthetic nanodisc
GPRC5D	FLP100011	Human GPRC5D full length protein-synthetic nanodisc
SSTR2	FLP100013	Human SSTR2 full length protein-synthetic nanodisc
CLDN18.2	FLP100014	Human CLDN18.2 full length protein-synthetic nanodisc
ADORA2A	FLP100020	Human ADORA2A full length protein-synthetic nanodisc
TM4SF1	FLP100022	Human TM4SF1 full length protein-synthetic nanodisc
CB1	FLP100023	Human CB1 full length protein-synthetic nanodisc
CCR4	FLP100024	Human CCR4 full length protein-synthetic nanodisc
OR2H1	FLP100025	Human OR2H1 full length protein-synthetic nanodisc
CD20	FLP100027	Human CD20 full length protein-synthetic nanodisc
CCR2	FLP100028	Human CCR2 full length protein-synthetic nanodisc
MDR-1	FLP100029	Human MDR-1 full length protein-synthetic nanodisc
CD63	FLP100030	Human CD63 full length protein-synthetic nanodisc
GPR75	FLP100031	Human GPR75 full length protein-synthetic nanodisc
SLC25A4	FLP100032	Human SLC25A4 full length protein-synthetic nanodisc
TRPA1	FLP100033	Human TRPA1 full length protein-synthetic nanodisc
TSPAN33	FLP100035	Human TSPAN33 full length protein-synthetic nanodisc
F2RL1	FLP100036	Human F2RL1 full length protein-synthetic nanodisc
CCR8	FLP100037	Human CCR8 full length protein-synthetic nanodisc