

PRODUCT INFORMATION

Tag	C-Flag&Strep Tag
Expression Host	HEK293
Target	MC2R
Synonyms	ACTHR
Description	Human BRIL-MC2R-Strep full length protein-synthetic nanodisc
Uniprot ID	Q01718
Protein Families	Druggable Genome, GPCR, Transmembrane
Protein Pathways	Neuroactive ligand-receptor interaction
Molecular Weight	The human full length MC2R-Strep protein has a MW of 44.8 kDa
Delivery	In Stock
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.
Sterility	Products are supplied non-sterile. For cell culture applications, dilute in appropriate medium and sterile-filter (0.22 µm) prior to use.
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	One member of the five-member G-protein associated melanocortin receptor family. Melanocortins (melanocyte-stimulating hormones and adrenocorticotrophic hormone) are peptides derived from pro-opiomelanocortin (POMC). MC2R is selectively activated by adrenocorticotrophic hormone, whereas the other four melanocortin receptors recognize a variety of melanocortin ligands. Mutations in MC2R can result in familial glucocorticoid deficiency. The BRIL sequence was added to the N-terminal of TAAR1 to enhance receptor stability. BRIL is thermostabilized apocytochrome b562 with mutations M7W, H102I, R106L, PDB ID 1M6T.
Usage	Research use only
Conjugate	Unconjugated



ELISA assay to evaluate BRIL-MC2R-Strep-Nanodisc 0.2µg Human BRIL-MC2R-Strep-Nanodisc per well

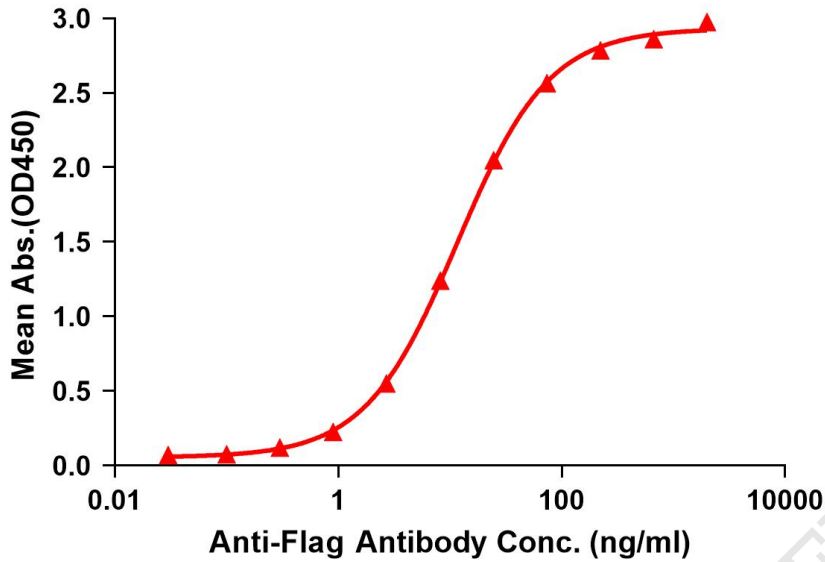


Figure 1. Elisa plates were pre-coated with C-Flag&Strep Tag BRIL-MC2R-Strep-Nanodisc (0.2µg/per well). Serial diluted anti-Flag monoclonal antibody solutions were added, washed, and incubated with secondary antibody before Elisa reading. From above data, the EC50 for anti-Flag monoclonal antibody binding with BRIL-MC2R-Strep-Nanodisc is 11.63ng/ml.

kDa M R



Figure 2. Human BRIL-MC2R-Strep-Nanodisc, C-Flag&Strep TAG on SDS-PAGE

