

GPCRs in Sf9 insect cell membrane suspensions: An efficient and highly sensitive screening system

Particulate cell-free for in-depth analysis of receptor/G-protein coupling

Advantages

High expression levels of most GPCRs

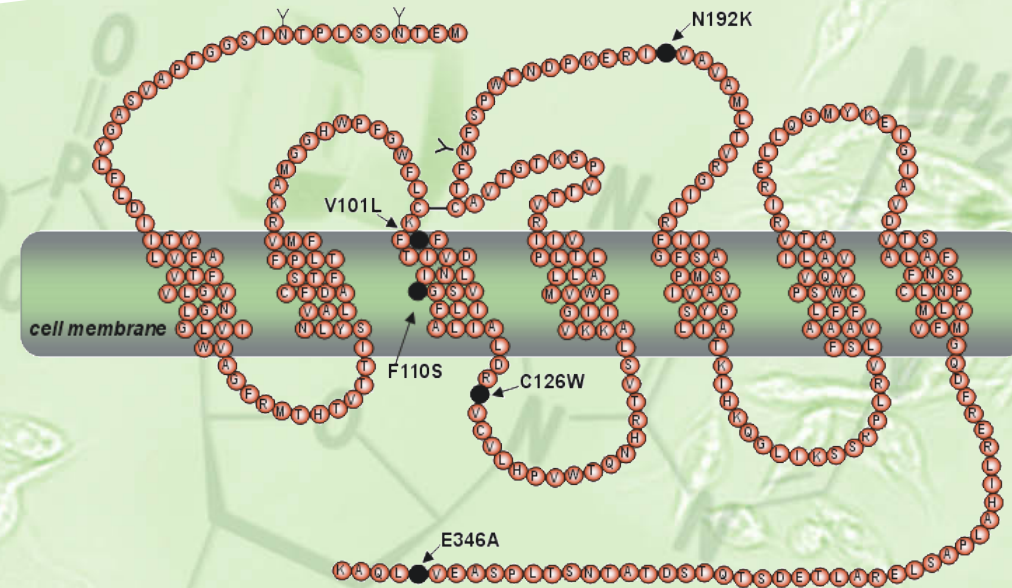
- Suitable for Gs-, Gi- and Gq-coupled receptors
- Easy upscaling
- High yields at low costs

Free combination of GPCR with G-protein of choice

- Highly sensitive analysis of GPCR/G-protein coupling

Epitope tags allow for sensitive immunodetection

Low background signaling in Sf9 cells



Applications

Identification of agonists and inverse agonists

Structure/activity relationships for ligands

Molecular mechanisms of GPCR activation

Analysis of GPCR domains by site-directed mutagenesis

Drawbacks

Need for radioactive assays

Limited use for intact cell assays

Expression levels may vary

Generation of viruses may take several weeks