Montana Molecular
Fluorescent Biosensors for Live Cell Discovery

SAFETY DATA SHEET

Relevant Products

#Z0100N Human D1 Dopamine Receptor
#Z0110N Human D2 Dopamine Receptor
#Z0115N Human D2 Dopamine Receptor (CAG)
#Z0120N D3 Dopamine Receptor
#Z0200N Human M1 Muscarinic Receptor
#Z0205N Human M1 Muscarinic Receptor (CAG)
#Z0200G Human M1 Muscarinic Receptor - Green
#Z0200R Human M1 Muscarinic Receptor - Red
#Z0210N Human M2 Muscarinic Receptor
#Z0215N Human M2 Muscarinic Receptor (CAG)
#Z0220N Human M3 Muscarinic Receptor
#Z0300N Human A1 Adenosine Receptor
#Z0400N Human Succinate Receptor
#Z0500N Human β2 Adrenergic Receptor
#Z0505N Human β2 Adrenergic Receptor (CAG)
#Z0500G Human β2 Adrenergic Receptor - Green
#Z0500R Human β2 Adrenergic Receptor - Red
#Z0600N Human Glucagon-like Peptide-1 (GLP-1) Receptor
#Z0610N Human Calcitonin Receptor
#Z0620N Human Vasopressin Receptor
#Z0700N Human Nociceptin Opioid Receptor (NOP)
#Z0710N Human Kappa Opioid Receptor (OPRK1)
#Z0720N Mu Opioid receptor (OPRM1)
#Z0730N Cannabinoid Receptor Type 1 (CNR1)
#Z0800N Human Angiotensin II Type I Receptor
#Z0900N Oxytocin Receptor
#Z1000N Chemokine Receptor Type 4 (CXCR4)
#Z1100N Serotonin 5-HT2A Receptor
#Z1200N Proteinase-Activated 2 (PAR2) Receptor
#Z1300N Lysophosphatidic Acid (LPA1) Receptor
#Z1400N Parathyroid Hormone 1 (PTH1) Receptor
#Z1500N Serotonin 5-HT1A Receptor
#Z1600N Glucose-dependent Insulinotropic Polypeptide (GIP) Receptor
#Z1700N Cannabinoid Receptor Type 2 (CB2)
#Z1800N Serotonin 5-HT2C Receptor
#Z1900N 5-HT1B Receptor
#Z2000N Glucagon (GCG) Receptor

Materials included

- G-protein coupled receptor in BacMam vector. ~ $2x10^{10}$ VG/mL in ESF 921 Insect Cell Culture Medium (Expression Systems #96-001-01).
- Sodium Butyrate (Sigma Aldrich product # B5887) 500 mM in H_2O.

  Add sodium butyrate to cultured cells to maintain BacMam expression as needed. Other HDAC inhibitors may work as well or even better in certain cell types. For expression in CHO cells, we recommend valproic acid instead of sodium butyrate. Many cell types maintain expression without an HDAC inhibitor.

Storage

BacMam vectors should be stored at 4°C and protected from light in the original package. Avoid repeated freeze/thaw cycles. Store HDAC inhibitor at 4°C

QA/QC

BacMam stocks are tested for sterility Samples are added to rich cell culture media without antibiotic and incubated at 37°C, 5% CO_2, and checked for bacterial or fungal growth after 5 days. Viral genes (VG) per milliliter (mL) are measured by qPCR with primers specific to VSVG. Check tube label for exact titer value. Viral genomic DNA at multiple dilutions are run in qPCR against a standard curve to generate an average titer for each BacMam stock. Each tube of stock is labeled with VG/mL and a stock keeping unit (SKU) identifier. To test efficacy, serial dilutions are added to cultured HEK 293 cells. After 24 hours, fluorescent cells are counted to establish transducing units per mL of stock.

Biosafety

BacMam is the modified baculovirus, *Autographa californica,* AcMNPV. Baculovirus is pseudotyped to infect mammalian cells, but it cannot replicate in the cells and its genome is silent in mammalian cells. While it should be handled carefully, in a sterile environment, it is classified as a BSL-1 reagent. The NIH Guidelines for Research on Recombinant DNA Molecules should be consulted for laboratory safety procedures.

For Research Use Only. Not recommended for use or sale in human or animal diagnostic or therapeutic products. This product contains no substances which at their given concentration are considered to be hazardous to health, however we recommend handling with care. Wear impervious gloves and eye protection when handling. Do not ingest.

Review the protocols on Montana Molecular's Website: www.montanamolecular.com before using these products.

Materials are provided without warranty, express or implied. End user is responsible for making sure product use complies with applicable regulations. No right to resell any components of these products is conveyed. Reverse engineering or modification of these products is not permitted.

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