Product Name: NPEC-caged-dopamine
CAS Number: 1257326-23-0
IUPAC Name: \((N)-1-(2\text{-Nitrophenyl})\text{ethylcarboxy}-3,4\text{-dihydroxyphenethylamine}\)

1. PHYSICAL AND CHEMICAL PROPERTIES

- **Batch Molecular Formula:** \(C_{17}H_{18}N_{2}O_{6}\)
- **Batch Molecular Weight:** 346.33
- **Physical Appearance:** Yellow solid
- **Solubility:**
  - 1eq. NaOH to 100 mM
  - DMSO to 100 mM
  - ethanol to 100 mM
- **Storage:** Store at -20°C

2. ANALYTICAL DATA

- **HPLC:** Shows 99.5% purity
- **\(^1\text{H NMR:}** Consistent with structure
- **Mass Spectrum:** Consistent with structure
- **Microanalysis:**
  - Theoretical: Carbon 58.96, Hydrogen 5.24, Nitrogen 8.09
  - Found: Carbon 58.74, Hydrogen 5.26, Nitrogen 7.94
Product Name: NPEC-caged-dopamine

CAS Number: 1257326-23-0

IUPAC Name: (N)-1-(2-Nitrophenyl)ethylcarboxy-3,4-dihydroxyphenethylamine

Description:
NPEC ((N)-1-(2-nitrophenyl)ethyl) caged version of dopamine (Cat. No 3548); releases dopamine leading to D₁ receptor activation upon UV light illumination (360 nm). Induces PKA activation and c-Fos expression in cortical and striatal neurons, with striatal neurons demonstrating a significantly greater detection and sensitivity to sub-second dopamine signals as compared to cortical neurons.

Physical and Chemical Properties:
Batch Molecular Formula: C₁₁H₁₂N₂O₆
Batch Molecular Weight: 346.33
Physical Appearance: Yellow solid

Minimum Purity: >99%

Storage: Store at -20°C
CAUTION - This product is light sensitive and we recommend that the solid material and any solutions obtained are protected from exposure to light.

Solubility & Usage Info:
1eq. NaOH to 100 mM
DMSO to 100 mM
ethanol to 100 mM

CAUTION - Dopamine is susceptible to oxidation and may decompose in solution. It is recommended that solutions are freshly prepared and used promptly. This product is also extremely hygroscopic. CAUTION - This product is extremely hygroscopic and we recommend that it is desiccated upon arrival.

Stability and Solubility Advice:
Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:
SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.
SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

References: