AssayGenie

SAFETY DATA SHEET

***Version**: 1.0* ***Issue Date:** 20-10-2026* ***Revision Date:** 20-10-2026*

Section 1: Identification

1.1. Product Identifier:

Product Codes: BR00005

Product Name: Carnitine Palmitoyltransferase 1 (CPT1) Activity Assay Kit

1.2. Relevant identified uses of the substance or mixture and uses advised against:

Identified use:
Laboratory reagent kit for in vitro quantitative determination of the stated analyte by enzyme-linked immunosorbent assay. Professional laboratory use only, by trained personnel.
Uses advised against: not for diagnostic or therapeutic procedures in humans or animals; not for food, cosmetic or household use; not for administration to humans or animals.

Pure substance/mixture: Mixture

1.3. Details of the supplier of the safety data sheet:
Assay Genie
25 Windsor Place
D02VY42
Dublin 2
Ireland
+353 (01) 8879802

For information about this SDS, please contact: techsupport@assaygenie.com

1.4. Emergency Telephone Number:
Contact the national poisons information centre or emergency service for the country of use.

Europe: A directory of centres is maintained by the European Association of Poisons Centres and Clinical Toxicologists (EAPCCT)
United Kingdom: general public dial 111 (England, Scotland and Wales); healthcare professionals contact the National Poisons Information Service (NPIS)
United States: Poison Help, 1-800-222-1222 (24 hours)
Canada: 1-844-POISON-X / 1-844-764-7669 (24 hours); Québec 1-800-463-5060
Australia: Poisons Information Centre, 13 11 26 (24 hours)
New Zealand: National Poisons Centre, 0800 764 766 (24 hours)
Elsewhere: consult the World Health Organization world directory of poisons centres

Section 2: Hazard(s) Identification

2.1. Classification of the substance or mixture
This product is a kit made up of separately packaged components. Classification according to Regulation (EC) No 1272/2008 (CLP) is given per component.

Not a hazardous mixture according to Regulation (EC) No 1272/2008. None of the kit components meets the criteria for classification.

2.2. Label elements
Labelling according to Regulation (EC) No 1272/2008: no hazard pictogram, signal word, hazard statement or precautionary statement required.

2.3. Other hazards
This mixture contains no substance considered to be persistent, bioaccumulative and toxic (PBT) or very persistent and very bioaccumulative (vPvB), and no substance with endocrine-disrupting properties, at levels of 0.1 % or higher.

Section 3: Composition/ Information on Ingredients

3.2. Mixtures
Ingredients present in the kit components (one row per chemical), with classification according to Regulation (EC) No 1272/2008 (classification of the pure substance unless stated). Concentration is not required for ingredients that are not classified (n/a):

Component / Ingredient	CAS No. / EC No.	Concentration (% w/w)	Classification (EC) No 1272/2008
CPT1 Assay Solution Iodonitrotetrazolium chloride (INT)	146-68-9 / 205-676-2	< 1	Flam. Sol. 1, H228; STOT SE 2, H371; STOT SE 3, H335 (as solid)
CPT1 Assay Solution Dimethyl sulfoxide (DMSO)	67-68-5 / 200-664-3	n/a	Not classified
Buffer / assay solutions Tris base	77-86-1 / 201-064-4	n/a	Not classified

INT is present in the assay solution in dissolved form well below its aqueous solubility limit (< 1 %), below the concentration limits that would trigger classification of the component.
Full text of H-statements in this section: H228 Flammable solid; H371 May cause damage to organs; H335 May cause respiratory irritation.
SCL = specific concentration limit; M = multiplying factor. Concentrations marked TBC have not been disclosed by the manufacturer and must be confirmed before release.

Section 4: First-Aid Measures

4.1. Description of first aid measures
General advice: No special measures required. If symptoms persist, consult a doctor and show this safety data sheet.
If inhaled: Remove person to fresh air and keep comfortable for breathing. Consult a doctor if symptoms develop.
In case of skin contact: Wash off with plenty of water. Remove contaminated clothing.
In case of eye contact: Rinse cautiously with plenty of water for several minutes. Remove contact lenses, if present and easy to do. Seek medical advice if irritation persists.
If swallowed: Rinse mouth with water. Do not induce vomiting. Consult a doctor if feeling unwell.

4.2. Most important symptoms and effects, both acute and delayed
No significant symptoms or effects are known. Mild irritation of the eyes or skin may occur on prolonged contact.

4.3. Indication of any immediate medical attention and special treatment needed
Treat symptomatically. No specific antidote is known.

Section 5: Fire-Fighting Measures

5.1. Extinguishing media
Suitable extinguishing media: Water spray, carbon dioxide (CO_2), dry chemical powder or alcohol-resistant foam. Use extinguishing measures appropriate to the surrounding fire.
Unsuitable extinguishing media: No limitations are known for this kit.

5.2. Special hazards arising from the substance or mixture
The kit components are predominantly aqueous solutions and are not flammable. In a fire, hazardous decomposition products may be formed, including carbon oxides, nitrogen oxides (NOx), sulfur oxides.

5.3. Advice for firefighters
Wear self-contained breathing apparatus and full protective clothing. Prevent fire-fighting water from entering drains or water courses.

Section 6: Accidental Release Measures

6.1. Personal precautions, protective equipment and emergency procedures
Wear the personal protective equipment described in Section 8. Avoid contact with skin and eyes and avoid breathing vapours or mist. Ensure adequate ventilation. Keep unprotected persons away.

6.2. Environmental precautions
Do not let large quantities enter drains. Given the small volumes supplied, a spill is unlikely to present a significant environmental risk if cleaned up promptly.

6.3. Methods and material for containment and cleaning up

Absorb spills with an inert, liquid-binding material (e.g. sand, diatomaceous earth, universal binder) and place in a suitable, labelled container for disposal according to Section 13. Clean the affected area thoroughly with water.

6.4. Reference to other sections
For personal protection see Section 8. For disposal see Section 13.

Section 7: Handling and Storage

7.1. Precautions for safe handling
For professional laboratory use only, by trained personnel. Avoid contact with skin, eyes and clothing. Do not eat, drink or smoke in the work area. Wash hands after handling. Follow good laboratory practice.
Protect assay solutions from light during preparation and use. Keep reagents on ice while working.

7.2. Conditions for safe storage, including any incompatibilities
Keep containers tightly closed in a dry, well-ventilated place. Store each component as follows:
CPT1 Assay Solution (5 ml (100 wells)): -80 °C – Protect from light
10x Palmitoyl-CoA (0.5 ml): -80 °C – Avoid repeat freeze-thaw
10x Tissue Lysis Solution (25 ml): 4 °C – Dilute 1:10
10x Lysis Buffer (25 ml): 4 °C – Dilute 1:10
Avoid repeated freeze–thaw cycles. Store away from strong oxidising agents.

7.3. Specific end use(s)
Laboratory reagent kit for research use. Not for diagnostic or therapeutic procedures.

Section 8: Exposure Controls/Personal Protection

8.1. Control parameters
The kit does not contain substances with occupational exposure limit values at concentrations requiring monitoring.

8.2. Exposure controls
Appropriate engineering controls: Use in a well-ventilated laboratory. A fume hood is not normally required for the volumes supplied; use one if aerosols or vapours may be generated.
Eye/face protection: Safety glasses with side shields (EN 166).
Hand protection: Nitrile rubber gloves tested to EN ISO 374 (minimum thickness 0.11 mm). Inspect gloves before use and replace if contaminated.
Body protection: Laboratory coat.
Respiratory protection: Not required under normal conditions of use with adequate ventilation.
Environmental exposure controls: No special requirements.

Section 9: Physical and Chemical Properties

9.1. Information on basic physical and chemical properties
Physical state: Liquid (aqueous solutions)
Colour: Component dependent; not determined

Odour: Not determined
Melting point/freezing point: Approx. 0 °C (aqueous solutions)
Boiling point or initial boiling point and boiling range: Approx. 100 °C (aqueous solutions)
Flammability: Not flammable
Lower and upper explosion limit: Not applicable
Flash point: Not applicable (aqueous solutions)
Auto-ignition temperature: Not applicable
Decomposition temperature: Not determined
pH: Components: buffered, not determined
Kinematic viscosity: Not determined
Solubility: Miscible with water
Partition coefficient n-octanol/water: Not applicable (mixture)
Vapour pressure: Not determined
Density and/or relative density: Approx. 1 g/cm³
Relative vapour density: Not determined
Particle characteristics: Not applicable

9.2. Other information
Explosive properties: none. Oxidising properties: none. No further relevant data available.

Section 10: Stability and Reactivity

10.1. Reactivity
No hazardous reactions are known under normal conditions of use.

10.2. Chemical stability
Stable under the recommended storage conditions (see Section 7).

10.3. Possibility of hazardous reactions
None known.

10.4. Conditions to avoid
Excessive heat, direct light (light-sensitive assay solutions) and repeated freeze–thaw cycles.

10.5. Incompatible materials
Strong oxidising agents.

10.6. Hazardous decomposition products
Under fire conditions: carbon oxides, nitrogen oxides, sulfur oxides.

Section 11: Toxicological Information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008
No toxicological studies have been performed on the kit or its components. The assessment is based on the ingredients and calculation methods of Regulation (EC) No 1272/2008.
Acute toxicity: Based on available data, the classification criteria are not met.
Skin corrosion/irritation: Based on available data, the classification criteria are not met.
Serious eye damage/irritation: Based on available data, the classification criteria are not met.

Respiratory or skin sensitisation: Based on available data, the classification criteria are not met.
Germ cell mutagenicity: Based on available data, the classification criteria are not met.
Carcinogenicity: Based on available data, the classification criteria are not met. No component is listed as a carcinogen at ≥ 0.1 %.
Reproductive toxicity: Based on available data, the classification criteria are not met.
STOT – single exposure: Based on available data, the classification criteria are not met.
STOT – repeated exposure: Based on available data, the classification criteria are not met.
Aspiration hazard: Based on available data, the classification criteria are not met.

11.2. Information on other hazards
Endocrine disrupting properties: The mixture does not contain components considered to have endocrine-disrupting properties for human health at levels of 0.1 % or higher.
Other information: Handle in accordance with good industrial hygiene and safety practice.

Section 12: Ecological Information

12.1. Toxicity
No component of the kit is classified as hazardous to the aquatic environment at the concentrations present.

12.2. Persistence and degradability
No data available for the mixture.

12.3. Bioaccumulative potential
No data available for the mixture. Significant bioaccumulation is not expected.

12.4. Mobility in soil
No data available. Components are water-soluble and may be mobile in soil.

12.5. Results of PBT and vPvB assessment
The mixture does not contain substances assessed as PBT or vPvB at levels of 0.1 % or higher.

12.6. Endocrine disrupting properties
The mixture does not contain components considered to have endocrine-disrupting properties at levels of 0.1 % or higher.

12.7. Other adverse effects
No further information available. Avoid release to the environment.

Section 13: Disposal Considerations

13.1. Waste treatment methods
Dispose of unused product, residues and contaminated packaging in accordance with Directive 2008/98/EC and local/national regulations, using a licensed waste disposal contractor.
Small quantities of the non-hazardous aqueous components may be disposed of according to local laboratory waste procedures. Suggested EWC code: 16 05 09 – discarded chemicals other than those mentioned in 16 05 06, 16 05 07 or 16 05 08.

Samples and reagents that have been in contact with biological material should be treated as potentially infectious waste.
Contaminated packaging: empty containers should be rinsed before recycling or disposal.

Section 14: Transport Information

14.1. UN number or ID number: Not regulated (ADR/RID, IMDG, IATA)
14.2. UN proper shipping name: Not regulated
14.3. Transport hazard class(es): Not regulated
14.4. Packing group: Not regulated
14.5. Environmental hazards: None
14.6. Special precautions for user: None.
14.7. Maritime transport in bulk according to IMO instruments: Not applicable.
Ship components requiring −20 °C / −80 °C storage on dry ice or as appropriate; dry ice (UN 1845) is subject to its own transport requirements.

Section 15: Regulatory Information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture
Regulation (EC) No 1907/2006 (REACH), as amended by Commission Regulation (EU) 2020/878; Regulation (EC) No 1272/2008 (CLP); Directive 98/24/EC (chemical agents at work); Directive 2008/98/EC (waste).
REACH Candidate List (SVHC, Article 59): Not applicable.
REACH Annex XIV (authorisation): Not applicable.
REACH Annex XVII (restrictions): Not applicable.
Seveso III (Directive 2012/18/EU): Not applicable.
Regulation (EU) 2019/1021 (persistent organic pollutants): Not applicable.
Regulation (EU) 2024/590 (ozone-depleting substances): Not applicable.

15.2. Chemical safety assessment
A chemical safety assessment has not been carried out for this mixture.

Section 16: Other Information

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This company shall not be held liable for any damage resulting from handling or from contact with the above product. This material must only be handled by suitably qualified, experienced scientists in appropriately equipped and authorized facilities. The above information is believed to be correct but does not purport to be all-inclusive and should be used as a guide only for experienced personnel. Always consult your safety advisor and follow appropriate local and national safety legislation. The absence of a warning must not, under any circumstances, be taken to mean that no hazard exists.

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a

guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

****End Of MSDS****