# DATA SHEET

## Product overview

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| Name | CELT-228 |
| Short description | Potent and selective $hA_3$ Adenosine receptors fluorescent antagonist |
| Biological description | It shows full selectivity for $A_3$ over $A_1$, $A_{2A}$ and $A_{2B}$ (only in the $A_3$ receptor it is possible to measure a $K_i$ whose value is 52.7 nM) in a radioligand binding assay. |
| Biological action | Modulation of $hA_3$ adenosine by orthosteric antagonism |
| Quantity | 10 µg |
| Purity | > 97% |

## Properties

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| Molecular Weight | 1294.53 |
| Source | Synthetic |
| Appearance | Purple solid |
| Formulation | Lyophilized solid |
| Excitation | 560 nm |
| Emission | 571 nm |
| Pharmacological validation | The efficacy and potency of CELT-228 as a selective fluorescent $hA_3$ adenosine receptor antagonist was confirmed by a radioligand binding assay. |

## Validated applications

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| Fluorescence polarization | CELT-228 has been validated in fluorescence polarization binding assays using membrane preparations from Hela cells overexpressing $hA_3$ dopamine receptor. CELT-228 fluorescent ligand was used at 75 nM concentration.[1] |
| Live-imaging confocal microscopy | CELT-228 has been validated in confocal microscopy for the labelling of $hA_3$ adenosine receptors in Hela cancer cells. |

## Storing and Using product

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| Storage instructions | -20 °C (protect from light) |
| Solubility overview | Soluble in DMSO |
| Stock solution | Add 77 µL of assay buffer containing 1% of DMSO to obtain a 100 µM stock solution. |
| Handling | After thawing individual aliquots for use, we recommend briefly sonicating the sample to ensure it is fully dissolved and the solution is homogeneous. We do not recommend using the product after subjecting it to repetitive freeze-thaw cycles. |
| Shipping conditions | The product, as a solid, is stable at ambient temperature for periods of up to a few days and does not require shipping on ice/dry ice. |
| Important | This product is for RESEARCH USE ONLY and is not intended for therapeutic or diagnostic use. Not for human or veterinary use. |

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## References

[1]D. Miranda-Pastoriza, R. Bernárdez, J. Azhuaje, R. Prieto-Díaz, M. Majellaro, A. V. Tamhankar, L. Koenekoop, A. González, C. Gioe-Gallo, A. Mallo-Abreu, J. Brea, M. I. Loza, A. García-Rey, X. García-Mera, H. Gutiérrez de Terán and E. Sotelo. ACS Medicinal Chemistry Letters. DOI: 10.1021/acsmedchemlett.1c00598.