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# DATASHEET

CAT335

## Product overview

| | |
|---|---|
| **Name** | CAT335 |
| **Cat No** | HB8146 |
| **Biological action** | Activator |
| **Purity** | >98% |
| **Description** | $K_{2P}$2.1 (TREK-1) modulator. Used with ML336 as part of the CATKLAMP chemogenetic strategy. Selectively and irreversibly activates TREK-1$^{CG^*}$ but not wild-type $K_{2P}$2.1 (TREK-1) |

## Biological Data

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|---|---|
| **Biological description** | $K_{2P}$2.1 (TREK-1) modulator. Recently used with ML 336 as part of the CATKLAMP chemogenetic strategy which uses the pair of compounds to rapidly and irreversiblly activate engineered TREK subfamily members to allow further probing of $K_{2P}$ function and act as a switch to silence neuronal firing. Selectively and covalently activates engineered versions of different $K_{2P}$ TREK subfamily members when used with ML 336, e.g. $K_{2P}$2.1 (TREK-1), $K_{2P}$10.1 (TREK-2), $K_{2P}$4.1(TRAAK). |

## Solubility & Handling

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| **Storage instructions** | Room temperature |
| **Solubility overview** | Soluble in DMSO (100 mM) |
| **Important** | This product is for RESEARCH USE ONLY and is not intended for therapeutic or diagnostic use. Not for human or veterinary use. |

## Chemical Data

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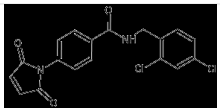
| **Chemical name** | N-[(2,4-dichlorophenyl)methyl]-4-(2,5-dioxo-2,5-dihydro-1H-pyrrol-1-yl)benzamide |
| **Molecular Weight** | 375.21 |
| **Chemical structure** |  |
| **Molecular Formula** | $C_{18}H_{12}Cl_2N_2O_3$ |
| **SMILES** | Clc1ccc(CNC(=O)c2ccc(cc2)N2C(=O)C=CC2=O)c(Cl)c1 |
| **Source** | Synthetic |
| **InChi** | InChI=1S/C18H12Cl2N2O3/c19-13-4-1-12(15(20)9-13)10-21-18(25)11-2-5-14(6-3-11)22-16(23)7-8-17(22)24/h1-9H,10H2,(H,21,25) |
| **InChiKey** | KSVANLMIIBANJX-UHFFFAOYSA-N |
| **Licensing details** | *Sold under license from the Regents of the University of California* |

## References


### Development of covalent chemogenetic K(2P) channel activators.

Deal PE et al (2023) bioRxiv : the preprint server for biology
**PubMedID** 37905049

### Development of covalent chemogenetic K(2P) channel activators.

Deal PE et al (2024) Cell chemical biology 31
**PubMedID** 39029456