

Acetylcholine receptor activator

Highly selective allosteric potentiator of the M₁ muscarinic acetylcholine receptor (mAChR). Reduces the concentration of ACh required to activate M₁ up to 129-fold and displays no potentiation, agonism or antagonism activity at other mAChRs at concentrations up to 100µM. Reverses scopolamine-induced memory deficits and increases blood flow to the cerebral cortex in mouse models. M₁ activators slow the progression of Alzheimers disease. Induces β-arrestin recruitment to M₁. At 100µM, it activated M₁ in the absence of ACh to ca. 50% maximal response. At 10µM, it reduced the concentration of ACh required to displace radioligand by 45-fold. *In vivo* experiments were carried out in mice at 15 or 20mg/kg. The compound is cell permeable, brain penetrant and orally active.

Citations: 3

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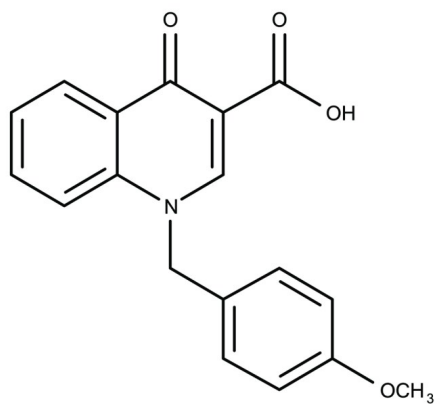
Ordering Information

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| | |
|---------------|------|
| BML-C121-0010 | 10mg |
| BML-C121-0050 | 50mg |

Manuals, SDS & CofA

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Handling & Storage

| | |
|--------------------------|--|
| Use/Stability | As indicated on product label or CoA when stored as recommended. Stable for at least 1 year after receipt when stored at room temperature. Stock solutions are stable for up to 3 months at -20°C. |
| Long Term Storage | Ambient |
| Shipping | Ambient Temperature |

Regulatory Status

RUO - Research Use Only

Product Details

| | |
|-------------------------|---|
| Alternative Name | 1-(4-Methoxybenzyl)-4-oxo-1,4-dihydro-3-quinoline carboxylic acid, Benzyl quinolone carboxylic acid |
| Appearance | White solid. |
| CAS | 338747-41-4 |
| Couple Target | Acetylcholine receptor |
| Couple Type | Activator |
| Formula | $C_{18}H_{15}NO_4$ |
| MW | 309.3 |
| Purity | ≥97% (HPLC) |
| Solubility | Soluble in DMSO (10mg/ml). |
| Source | Synthetic. |

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