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**Product Data Sheet**

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Product Name: MK-3328  
Cat. No.: GC31285

**Chemical Properties**

Cas. No. 1201323-97-8

SMILES CN1C=CC2=CC(C3=NC4=CC=C(F)N=C4O3)=CN=C21

Formula  $C_{14}H_9FN_4O$  M.Wt 268.25

Solubility Soluble in DMSO Storage Store at -20°C

General tips For obtaining a higher solubility , please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.

Structure

**Protocol**

**Caution: Product has not been fully validated for medical applications. For research use only.**

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com

Address: 10292 Central Ave. #205, Montclair, CA, USA

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### Kinase experiment:

[3H]-DMAB is synthesized at a specific activity of ~80 Ci/mmol. The final concentration of radioligand for tissue homogenate binding assay is 1.5nM. Brain homogenates are diluted with PBS to 0.4 mg/mL from original 10 mg/mL volume and 200  $\mu$ L is used in assay for a final concentration of 50  $\mu$ g/assay tube. Unlabeled test compounds are dissolved in DMSO at 1 mM. Dilution of test compound (e.g., MK-3328) to various concentrations is made with PBS containing 2% DMSO. Total binding is defined in the absence of competing compound, and non-displaceable binding is determined in the presence of 1  $\mu$ M unlabeled self block. Compound dilutions (10 $\times$ ) are added into the assay tube (25  $\mu$ L each/per tube, separately) containing 200  $\mu$ L brain homogenate dilution, and the tubes are pre-incubated at room temperature for 10 minutes. Then radioligand dilutions (10 $\times$ ) are added into the assay tube (25  $\mu$ L each/per tube, separately) to a final volume of 250  $\mu$ L per tube. Incubation is carried out at room temperature (25 $^{\circ}$ C) for 90 minutes, and then the assay samples are filtered onto GF/C filters using Skatron 12 well harvester, washing on setting 5-5-5 (~ 3 $\times$ 2 mL) ice cold buffer (PBS, pH 7.4). GF/C filter papers for the Skatron harvester are pre-soaked in 0.1% BSA for 1 hour at room temperature before use. Filters are punched into scintillation vials and counted in 2 mL Ultima Gold on Perkin Elmer Tri-Carb 2900TR for 1 minute. The data analysis is done with Prism software. All assays are done in triplicate, and in the laboratory designated for studies using human tissues[1].

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### References:

[1]. Harrison ST, et al. Synthesis and Evaluation of 5-Fluoro-2-aryloxazolo[5,4-b]pyridines as  $\beta$ -Amyloid PET Ligands and Identification of MK-3328. ACS Med Chem Lett. 2011 Apr 18;2(7):498-502.

### Background

MK-3328 is a  $\beta$ -Amyloid PET ligand, which exhibits high binding potency with an IC<sub>50</sub> of 10.5 nM.

MK-3328 exhibits amyloid binding potency balanced with low levels of nonspecific binding[1].

In vivo, [<sup>18</sup>F]MK-3328 demonstrates favorable kinetics, exhibiting high brain uptake and good washout in normal rhesus monkey positron emission tomography (PET) imaging studies[1].

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