

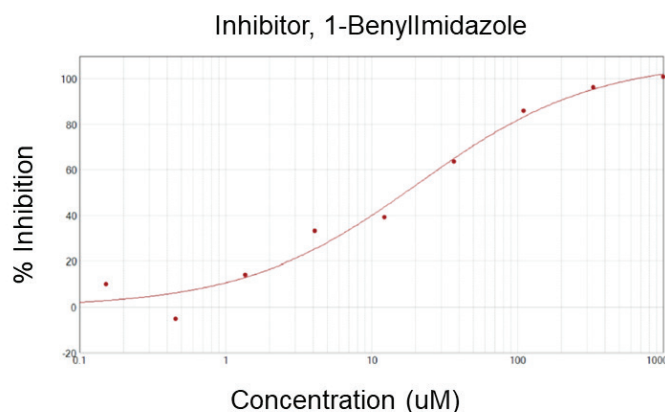
HUMAN GLUTAMINYL CYCLASE ACTIVITY ASSAY (QC INHIBITORY ACTIVITY)

QPS *IN VITRO* PHARMACOLOGY ASSAY

Human glutaminyl cyclase (hQC) is an important enzyme for post-translational modification by converting the N-terminal glutaminyl and glutamyl into pyroglutamate (pGlu) through cyclization. It is involved in various pathological conditions especially in Alzheimer's disease (AD). The sQC is known to mediate the formation of pyroglutamate containing amyloid beta (pGlu-A β) peptides. Therefore, hQC inhibition is an attractive strategy to prevent the formation of pGlu-A β and to reduce neuroinflammation and hence provides a new opportunity for the treatment of AD.

In Vitro QC Inhibitory Assay Details

- ▶ The kit provides a convenient procedure for measuring enzyme activity.
- ▶ The compounds will be assessed for their ability to inhibit human recombinant glutaminyl cyclase (QC) using SensoLyte® Green Glutaminyl Cyclase Activity Assay Kit Fluorimetric (AnaSpec, AS-72230), according to the manual.
- ▶ The compounds will be dissolved in DMSO, as a 10 mM stock solution and stored at room temperature until further use.
- ▶ For the assay, the compounds will be tested at 10 concentrations, diluted in the provided assay buffer to the desired concentrations.
- ▶ The % activity of positive control will be calculated and represented as 0% of inhibition.
- ▶ The IC₅₀ will be calculated from each % inhibition plot using the Y intercept at 50 units concentration.



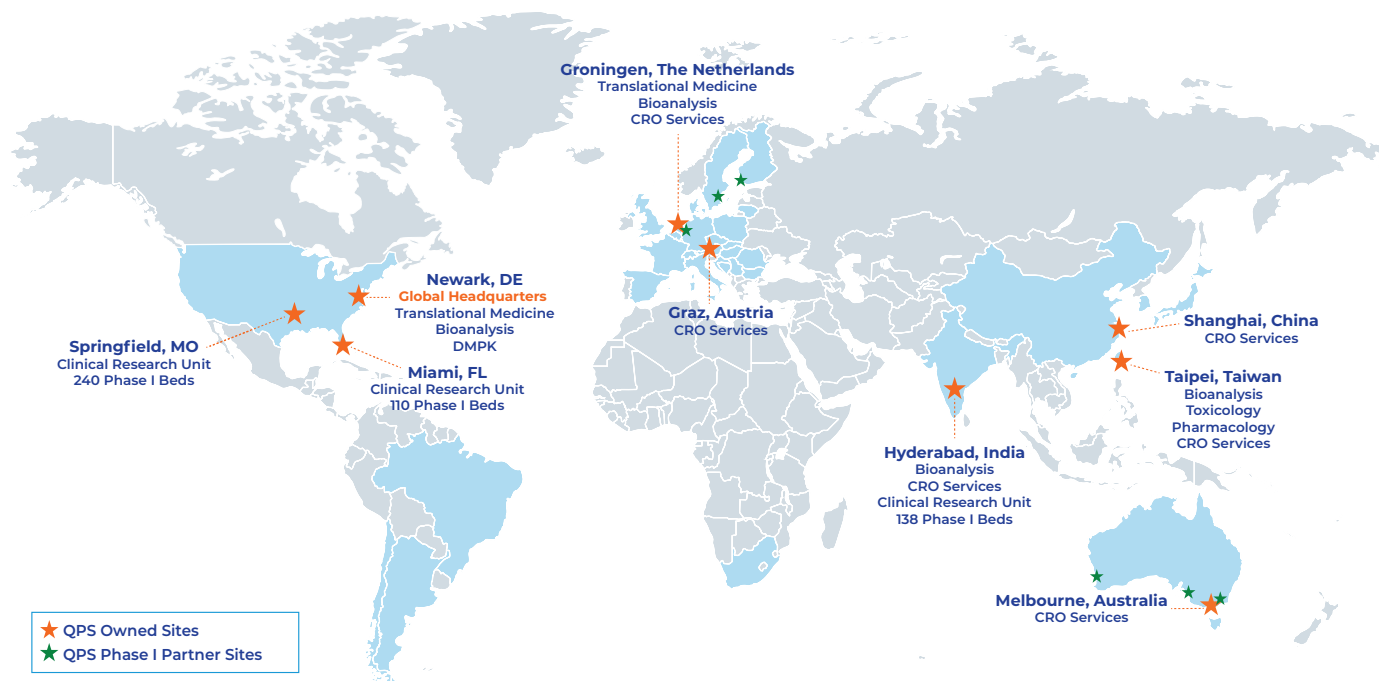
1-Benyllmidazole, IC₅₀: 17 μ M

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