

## Rat Glutamate Cysteine Ligase, Catalytic (GCLC) Assay Kit | GCLC assay kit

Glutamate Cysteine Ligase, Catalytic (GCLC) Magnetic Fluorescence Assay Kit

CATALOG #  
**AAA159002**

REACTIVITY  
**Rat**

### PRODUCT SYNONYMS

Glutamate Cysteine Ligase; Catalytic (GCLC); Catalytic (GCLC) Magnetic Fluorescence Assay Kit; GCS; GLCL; GLCLC; Gamma-glutamylcysteine synthetase; Gamma-ECS; Catalytic; GCLC assay kit

### PRODUCT SPECIFICATIONS

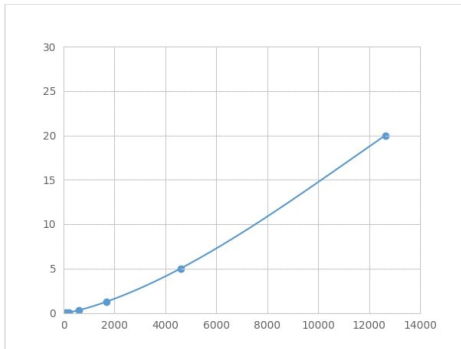
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|-------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Reactivity              | Rat                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Specificity             | This assay has high sensitivity and excellent specificity for detection of Glutamate Cysteine Ligase, Catalytic (GCLC), etc.<br>No significant cross-reactivity or interference between Glutamate Cysteine Ligase, Catalytic (GCLC), etc. and analogues was observed.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Assay Type              | Double-antibody Sandwich                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Samples                 | Serum, plasma, tissue homogenates and other biological fluids.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Detection Range         | 0.02-20ng/mL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Sensitivity             | The minimum detectable dose of this kit is typically less than 0.007 ng/mL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Precision               | Intra-assay Precision (Precision within an assay): 3 samples with low, middle and high level Glutamate Cysteine Ligase, Catalytic (GCLC), etc. were tested 20 times on one plate, respectively.<br>Inter-assay Precision (Precision between assays): 3 samples with low, middle and high level Glutamate Cysteine Ligase, Catalytic (GCLC), etc. were tested on 3 different plates, 8 replicates in each plate.<br>CV(%) = SD/meanX100<br>Intra-Assay: CV<10%<br>Inter-Assay: CV<12%                                                                                                                                                                                                                                                                                                          |
| Research Area           | Enzyme & Kinase                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Assay Procedure Summary | <ol style="list-style-type: none"> <li>1. Preparation of standards, reagents and samples before the experiment</li> <li>2. Add 100uL standard or sample to each well, add 10uL magnetic beads, and incubate 90min at 37 degree C on shaker</li> <li>3. Remove liquid on magnetic frame, add 100uL prepared Detection Reagent A. Incubate 60min at 37 degree C on shaker</li> <li>4. Wash plate on magnetic frame for three times</li> <li>5. Add 100uL prepared Detection Reagent B, and incubate 30 min at 37 degree C on shaker</li> <li>6. Wash plate on magnetic frame for three times</li> <li>7. Add 100uL sheath solution, swirl for 2 minutes, read on the machine.</li> </ol>                                                                                                        |
| Test Principle          | Analyte-specific antibodies are pre-coated onto color-coded microparticles. Microparticles, standards, and samples are pipetted into wells and the immobilized antibodies bind the analytes of interest. After washing away any unbound substances, a biotinylated antibody cocktail specific to the analytes of interest is added to each well. Following a wash to remove any unbound biotinylated antibody, Streptavidin-Phycoerythrin conjugate (Streptavidin-PE), which binds to the biotinylated detection antibodies, is added to each well. A final wash removes unbound Streptavidin-PE and the microparticles are resuspended in buffer and read using fluorescent spectrum analyzer. The MFI developed is proportional to the concentration of analytes of interest in the sample. |

## Preparation and Storage

The stability of kit is determined by the loss rate of activity. The loss rate of this kit is less than 5% within the expiration date under appropriate storage condition.

To minimize extra influence on the performance, operation procedures and lab conditions, especially room temperature, air humidity, incubator temperature should be strictly controlled. It is also strongly suggested that the whole assay is performed by the same operator from the beginning to the end.

## IMAGES



Standard Curve (Sample)

**For Research Use Only.** Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/rat-assay-kits/glutamate-cysteine-ligase-catalytic-gclc/159002>